

**VADODARA DISTRICT
GAZETTEER**

With the Best Compliments

From

Chief Editor

Gujarat District Gazetteers

Ahmedabad.

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Government of Gujarat

VADODARA DISTRICT

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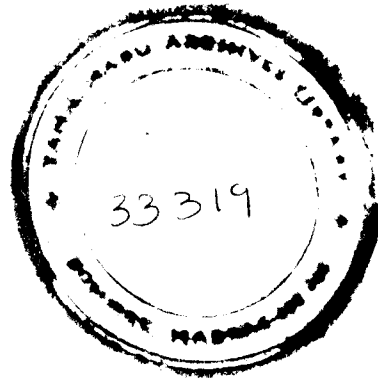
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GAZETTEER OF INDIA
GUJARAT STATE GAZETTEERS
VADODARA DISTRICT

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PREFACE

Vadodara, or more popularly called Baroda till recently, situated in the centre of mainland of Gujarat, occupies a prominent position among the districts of the State, being one of the socially, economically and educationally advanced districts in the State.

Till Independence and sometime thereafter Baroda State existed as a Class I princely State in the Indian Union. On its merger in the Bombay Province from 1st May 1949, Baroda became one of the districts of Bombay State and of Gujarat on the latter's formation from 1st May, 1960. There were States and Estates of Chhota Udepur, Bhadarva, Pandu Mewas, etc. which were also integrated in the Indian Union. They are now included in the present Vadodara district.

The first *Gazetteer of the Baroda State* was prepared in 1883 A. D. by Sir F. A. H. Elliot, who was engaged as a private tutor to the (late) Maharaja Sayajirao III. Late R. B. Govindbhai Hathibhai Desai and Mr. A. B. Clarke revised the Gazetteer in two volumes in 1923. A further attempt was made on the eve of Independence, though not in its entirety. The Baroda Government regularly published its Annual Administration Reports which furnished very valuable information in the preparation of the present Gazetteer. The Souvenir published at the time of Indian Science Congress Session in 1955 provides a treasure of information. Lastly, the Lead Bank Report prepared by the Bank of Baroda gives a very comprehensive data of the socio-economic development in the district.

This is the 15th Gazetteer in the series published by the Government of Gujarat in conformity with the plan of revision of District Gazetteers adopted by the Government of India. There are certain distinguishing features which make this district unique among others in the State. During the British Rule in the country, Vadodara was the headquarters of the Resident of the whole of Western India and all the States and Estates in these areas were under the control of this Residency. The venue of the Residency now forms the core of the Maharaja Sayajirao University of Baroda. Architecturally, the district is also famous. The Hira Bhagol at Dabhoi built during the Chaulukya period is famous for its sculptural beauty. The Mausoleum built in 1583 in memory of Qutb-ud-din Muhammad, uncle of Mirza Aziz Koka, Khan-I Khanan in Akbar's court in Indo-Saracenic style is also a protected monument. The Bhoj step-well in Padra taluka contains an old stone inscription dated 1499 A. D. Vadodara is more famous for its modern "E" shaped stone buildings constructed during the time of Sayajirao III, such as the Lakshmi Vilas Palace, the Nyaya

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Mandir, Kirti Mandir, Khanderao Vegetable Market, etc. The magnificent dome over the central hall in the Arts Faculty is also constructed in Indo-Saracenic style. The Baroda Museum and Picture Gallery has unique collections of paintings, sculptures and rare images.

Economically the district is more advanced. It has acquired a name as a cotton producing zone besides other crops. The Oil Refinery for refining crude oil, the Gujarat Fertilisers, the Indian Petro-Chemicals Corporation, etc. involving investments of crores of rupees have put Vadodara on the industrial map of the country. As a result of the establishment of these industries, the scope for establishing subsidiary industries on their effluents or down stream industries has greatly increased. These industries have simultaneously helped in expanding the employment opportunities for the people.

Vadodara district has considerable deposits of minerals in the forest areas of Chhota Udepur, viz., dolomite, quartz, manganese, calsite, small quantities of graphite and limestone, flourspar, ferrous metal etc. For the treatment of flourspar, a factory has been erected at Amba Dungar in Chhota Udepur taluka. Some rare metals like Beryllium, Niobium, Zirconium and Thorium are also found near Amba Dungar in small quantities. Further, Vadodara is one of the leading centres of pharmaceuticals industry in the country. It produces anti-biotics, medicines, vitamins, etc. The Alembic Glass Works has acquired a name in ceramic industry.

One can certainly take pride in the Bank of Baroda which was the first commercial bank to be registered not only in the Baroda State as far back as 1908 but has been the first in Gujarat State also. The first urban co-operative bank in the State, viz. the Anyonya Sahkari Mandali was established in 1889. Thus, the seeds of commercial and co-operative banking in the whole State were sown here.

In respect of communications facilities it may be stated that Vadodara district is well served. The district is served by a net-work of railway lines. The State had its railway, viz. the Gackwad Baroda State Railway with headquarters at Pratapnagar near Vadodara. It also has an aerodrome, constructed by the former ruler.

The district is famous as a leading educational centre. It houses one of the most progressive residential universities named after the late Maharaja Sayajirao III. The special institutes like Oriental Institute, the Sanskrit Mahavidyalaya, Govindrao Sangeet Pathshala, College of Indian Music, Dance and Dramatics, etc., are unique in the whole State. The Baroda State was in the forefront in the library movement, thanks to the efforts made by (late) Motibhai Amin. The Central Library in the

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heart of the city is a living monument to Shri Motibhai. Vadodara State was pioneer in ushering in free and compulsory primary education in 1906 for removal of illiteracy from the State.

Vadodara district also produced leading personalities. Maharshi Aurobindo Ghosh was Professor at the Baroda College. Acharya Vinoba Bhave passed his childhood at Vadodara. Other leading dignitaries associated with Vadodara are Dadabhai Naoroji, Dr. R. C. Dutt, author of Economic History of India, Manubhai Mehta, Sir V. T. Krishnamachariar and Shri B. L. Mitter, former Dewans of the State. Shri Krishnamachariar later became the first Vice-Chairman of the Planning Commission. Other prominent personalities were Professor T. K. Gajjar, a renown scientist, Professor A. K. Trivedi, Sanskrit Scholar; Dr. Jivraj Mehta, Dr. K. M. Munshi, Shrimati Hansaben Mehta, Gokuldas Dwarkadas Raichura, Tarachand Popatlal Adalja, etc. Late Dr. B. R. Ambedkar, the main architect of our Constitution, was patronised by the Maharaja Sayajirao. Professor Bendre, the Dean of the Faculty of Fine-Arts, is a painter of international repute. Late Shri R. V. Desai who, though born elsewhere, stayed at Vadodara and conducted his literary activities from here. The district produced famous poets like Mahakavi Premanand, who is famous for his Akhyanas. Kavi Dayaram of Dabhoi wrote a number of songs in praise of Lord Krishna, poet Dhira of Savli taluka and poet Giridhar, who wrote Giridhar Ramayana, hailed from this district. To perpetuate the memory of the Mahakavi, Premanand Sahitya Sabha has been started at Vadodara. Musicians like Maulabuksh, Nazir Khan and Aladhyakhan hailed from this district. Professor Manik Rao and Chhotubhai Purani, started the gymnasium movement at Vadodara.

In respect of religious centres, the district has Rang Avdhut Ashram at Nareswar, on the holy Narmada river and Lakulish Mahadev temple at Kayavarohan. Narmada called the river Ganga of Gujarat flows through this district and places like Malsar, Chandod and Karnali are famous as both religious centres and places of interest. Last but not the least, Vadodara is also famous as a city of parks and gardens which help to change entire landscape of the city. It has well laid out roads and planned growth with the result that main roads are found at a very short distance from different localities.

The work of preparing the revised Gazetteer was undertaken under the stewardship of my predecessor, Dr. S. B. Rajyagor, who left the charge from 13th April 1978. After taking over from 27th June 1978, I made certain valuable additions of some rare photographs of Akota excavations with their explanatory notes. These are incorporated in the Gazetteer. I also expedited the printing of the Gazetteer.

My grateful thanks are due to H. E. Smt. Shardaben Mukarjee, Governor of Gujarat, Hon. Shri Babubhai J. Patel, Chief Minister and Shri H. K. L. Kapoor, I. A. S., Chief Secretary, who have taken interest in the preparation of District

Gazetteers. The work of preparation and compilation of District Gazetteers is a tough and complex task and requires continuous hard labour and uninterrupted zeal of a true research scholar. In preparation of these Gazetteers, I have received very able assistance from Shri U. M. Chokshi, Deputy Editor and Research Officers Shri M. R. Trivedi, Dr. A. P. Bhatt, Shri R. R. Trivedi, Shri C. A. Thakkar and Shri C. C. Trivedi. Dr. A. P. Bhatt drafted the History of Freedom Movement in the district. Among other staff members mention should be made of S./Shri D. H. Acharya, B. A. Patel, N. D. Bhatt, Y. D. Jadeja, S. S. Shah, B. K. Soni, J. R. Shah and Smt. N. N. Parikh, Research Assistants and Junior Assistants Shri P. B. Parikh, Shri K. T. Trivedi, Kum. K. S. Suryavanshi, Shri S. S. Bhonsle, Shri G. N. Solanki, Shri R. D. Gandhi, B. J. Patel and K. H. Arab. The manuscripts were neatly put into type by the team headed by Shri P. Bhaskaran, Stenographer, S. S. Alvi, K. B. Soni and N. R. Bhavsar, typists.

I also wish to place on record my grateful thanks to Dr. P. N. Chopra, Editor, and officers and staff of the Central Gazetteers Unit, Ministry of Education and Social Welfare (Department of Culture), Government of India, New Delhi for thorough scrutiny and valuable suggestions, which are, as far as possible, incorporated in this volume.

Lastly, I must thank Shri C. N. Shah, I. A. S., Director, and Shri B. M. Paliwal, Deputy Director, Government Printing and Stationery, Ahmadabad and Shri R. J. Mehta, Manager, Government Press, Vadodara and his staff for elegant printing and beautiful get-up of this Gazetteer volume.

Ahmadabad,
1st January, 1979.

S. TRIPATHY,
I. A. S.,
Chief Editor.

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Aerial view of the city with Mandvi Tower in the Centre

CHAPTER I

GENERAL

Introductory

ORIGIN OF THE NAME OF THE DISTRICT

The district derives its name from its headquarters city Vadodara as do most of other districts also in the State. The ancient town of Vadodara was once called '*Chandanvati*' after the name of Raja Chandan of the Dor tribe of Rajputs who wrested it from the Jains. Chandan was the husband of the celebrated queen Maliagri and the father of two famous daughters named Socri and Nila.

"Its name of *Chandanvati*, or the 'City of Sandalwood', was afterwards, changed to *Viravati* or the 'Abode of Warriors', and then again to *Vatpatra* or 'Leaf of the *Vad* Tree', perhaps from its fancied resemblance to that broad leaf. It is also related that once upon a time there lived at Manipur, which is near Harni, in the neighbourhood of Vadodara, a tyrant King named Samal. He went out hunting, and being tired, rested under a *Vad* tree where he meditated until his conscience smote him and he turned to Shiva hence called Vimalleshvar 'the god that turneth away *mal* or Sin'. He descended from his throne and lived the life of a saint, and so obtained the forgiveness of the god. He then ordered that a city called *Vatpatra* should be built on the spot.¹

Archaeological research has proved that man was roaming in the environs of Vadodara from pre-historic age. His tools have been discovered from this area. This area of grassland and forest was occupied by civilized people around the closing centuries of the pre-Christian era. They developed a nucleated habitation on the right bank of the river Vishvamitri. As this habitation was developed on or near the site having Ankola trees, it came to be known as *Ankottaka* (modern Akota).

The flourishing *Ankottaka* developed one of its suburbs on the left bank of the Vishvamitri. This suburb, situated about a kilometre to the east of *Ankottaka* was situated on a more elevated ground, where Banyan (*Vad*) trees were existing. This suburb was, therefore, appropriately known as the 'suburb near the banyan tree', that is *Vadapadraka*.

1. DESAI G. H. AND CLARKE A. B., '*Gazetteer of the Baroda State*', Vol. II, *Administration*, Bombay, (1923), p. 451.

This *Vadapadraka* rapidly out-grew the old administrative unit and in the 10th century we find that the Chalukyas of Lata had made it the administrative centre.¹

Thus it can be said that the present name of the district, viz., *Vadoda* is derived from *Vadapadraka* of the ancient period.

LOCATION

Situated in Eastern Gujarat, Vadodara is the twelfth largest district in the State. Measuring 7,788 sq. km., and accounting for 3.97 per cent of the State's total geographical area, it lies between 21° and 23° north latitudes and 73° and 74°-10' east longitudes. It is bounded on the north by the Panch Mahals district, on the north-west by Kheda district, on the south and south-west by Bharuch district, on the east by the Madhya Pradesh State and on the south-east by the Dhulia district of Maharashtra State. The river Mahi forms the natural boundary between the Vadodara and the Kheda districts.

URBAN AREAS

Twelve areas in the district have been declared as urban areas. Names of these are tabulated below along with the population of each and the percentage that it represents of the total urban population of the district.

Name of urban area 1	Population 2	Percentage of total (district) urban population 3
Total	6,03,205	100.00
Vadodara	4,67,487	77.50
Fortilizornagar	5,327	0.88
Jawaharnagar	5,710	0.95
Karjan	11,968	1.99
Padra	24,229	4.02
Vaghodia	7,551	1.25
Dabhoi	37,892	6.28
Sankheda	7,973	1.32
Bodeji	6,229	1.04
Bahadarpur	6,179	1.02
Chhota Udepur	14,312	2.37
Sinor	8,348	1.38

1. MEHTA D. N. (DR.), *High Lights on Baroda*, An Article in the Book entitled "*Profiles of Growing City*", M. S. University of Baroda, (1971), p.107.

The district takes its name from its only city and its largest urban centre, Vadodara city. Situated on the bank of the Vishvamitri river, the city has a population of 4,67,487 at the latest Census and is the third largest city in the State. It ranks twenty-first among the cities of India and is undisputedly one of the country's most beautiful cities.

ADMINISTRATIVE UNITS AND THEIR AREA AND POPULATION

The district measures 7,788.0 sq. km., in area and has a population of 19,80,065 persons representing 7.42 per cent of the total State population.

The distribution of the population by rural and urban areas and its density in the two areas is as follows :

Population			Percentage of rural/ urban population to total district popula- tion		Density per Sq. Km.	
Rural	Urban	Total	Rural	Urban	Rural	Urban
13,76,860	6,03,205	19,80,065	69.54	30.46	181	3,313

It has three sub-divisions, viz., Vadodara, Dabhoi and Chhota Udepur eleven talukas and one mahal. The area and population and the density per km., in respect of each of the administrative units are tabulated below.

STATEMENT I-1

Administrative Unit 1	Area in Sq. Km. 2	Population 3	Number of Inhabited villages 4	Towns 5	Popula- tion per Sq. Km. 6	Percentage of total population of admini- strative unit to total district population 7
Vadodara District	7,788.0	19,80,065	1,677	12	254	100.00
Vadodara Taluka	670.0	6,65,306	111	3	993	33.60
Karjan Taluka	601.9	1,14,782	94	1	191	5.80
Padra Taluka	534.6	1,71,308	82	1	320	8.65
Savli Taluka	792.0	1,61,022	136	..	203	8.13
Vaghodia Taluka	564.5	89,269	94	1	158	4.51
Dabhoi Taluka	632.6	1,45,160	118	1	229	7.33
Sankheda Taluka	722.6	1,33,676	183	3	185	6.75
Jabugam Taluka	799.4	1,37,756	212	..	172	6.96
Chhota Udepur Taluka	1,379.1	1,88,927	249	1	137	9.54
Nasvadi Taluka	535.2	72,661	216	..	136	3.67
Tilakwada Mahal	244.6	43,542	112	..	178	2.20
Sinor Taluka	292.5	56,656	40	1	194	2.86

Source : The Census of India, 1971, Part-X-A, *Administrative Atlas*, (1972), p. 86.

ADMINISTRATIVE HISTORY

The administrative history of the district, makes a fairly interesting reading. From the view point of composition, the district comprises parts of Vadodara district of the former Baroda State and the former Indian States of (1) Chhota Udepur, (2) Sankheda Mewas, (3) Pandu Mewas and (4) Bhadarva. Vadodara which was the capital of the State is now the headquarters of the district and is situated at the bifurcation point of Bombay-Delhi and Bombay-Ahmadabad sections of Western Railway.

The ancient *Vadapadraka* and the surrounding areas were ruled by the Chalukyas of Lata in the tenth century. *Vadapadraka* was their administrative centre. Subsequently the major portion of the district was ruled by Solankis, the Vaghelas and the Sultans of Delhi. The Sultans of Gujarat also ruled the district.

The first Maratha force that made its appearance in Gujarat was led there early in 1664 by Shivaji and in 1669 raids by Dabhade also continued. The Marathas invaded Gujarat in 1705 A. D., and took the advantage of the confusion that ensued after the death of Mughal Emperor Aurangzeb in 1707. Khanderao Dabhade, Maratha Senapati, at the outset intended to acquire from the Mughals the right to levy the tribute and later on *Chauth* and *Sardeshmukhi*. Shortly after 1720, Dabhade, the Senapati, received authority from the Raja of Satara to realise the dues established by usage from Gujarat and Baglan. One of his officers named Damaji Gaekwad, who had shown much gallantry in the battle, received from the Shahu Raja of Satara the title of *Sansher Bahadur* (Illustrious swordsman). The military power of Marathas forced Sarbuland Khan, the Mughal Viceroy at Ahmadabad to recognise their right of *Chauth* and *Sardeshmukhi* in Gujarat. Pilaji Gaekwad then founded the House of Gaekwad at Vadodara between 1721-1732.

In the administrative history so far as the State of Vadodara is concerned, two treaties are important, viz.,

- (i) The Treaty of Bassein, 1802 and
- (ii) The Definitive Treaty of 1805.

By the Treaty of Bassein, Peshwa virtually placed his independence in the hands of the British. In payment of the subsidiary force required, he handed over territory in Gujarat, the revenue of which amounted to Rs. 12,28,000 and finally he constituted the British Government an arbiter in the disputes between his Government and that of Vadodara.

On the 21st of April a Definitive Treaty was concluded between the British and the Gaekwad Governments consolidating the agreements made

in 1802, in terms consonant with those employed in the Treaty of Bassein. By the III Article, the subsidiary force was raised to 3,000 infantry and one company of European artillery.

The other Articles of the Treaty made Baroda State virtually a vassal of the East India Company.

The Treaty of Poona, 1817 and the supplementary Treaty of 1817 also made State of Baroda subordinate to the British. On 1st May, 1949 it was merged with the Bombay State. The details about other States are as follows :—

The Chhota Udepur Chiefs claim to belong to the clan of Khichi Chohans whose chief Anhal is said to have been created by Vashishta Muni out of the Agni Kund on Mount Abu. According to the bardic accounts, a descendent of Patai Rawal *alias* Jaysinh, the last Chohan Raja or Champaner established a small kingdom at Mohan or Alimohan on the banks of the river Narmada. In course of time, probably during the decay of Mughal power in the early part of the 18th century, the capital was moved 32.19 km., north to Chhota Udepur on the banks of the river Orsang. Baji Rawal is said to have founded Chhota Udepur. It continued to remain a separate State till it was merged in Bombay Province in 1949.

Sankheda Mewas Estates—Some of them consisting of one or two villages and with proprietors little more than husbandmen, were under seven groups, viz., the Chauhan group, the Rathod group, the Chavda group, the Gori group, the Dhima group, the Solanki group and the Parmar group. All these estates have been merged with the Bombay State after Independence and now form part of Vadodara district.

The proprietors of Pandu Mewas estates were tributary chiefs. All these groups of estates were merged with the Bombay State in 1949 and are included in Vadodara district.

Vadodara was a viable State with sound traditions of efficiency and good Government but the administration might at best be described as a “benevolent despotism” and there was no popularly elected ministry. Even the administration which had been set-up by Sir Sayajirao Gaekwad began to crack up after the accession of his grandson Sir Pratapsingh in 1939. Sir Pratapsingh was completely oblivious of the changes taking place around him and his actions were not calculated to enhance his prestige either among the people or among his brother rulers.

The extravagance of Sir Pratapsingh coupled with his frequent absence from the State and his choice of advisers who had nothing in common with the people led to a serious agitation for responsible Government

in the State. The popular leaders met Sardar Patel in this connection and made it clear that entire responsibility for the administration of the State should be taken away from Sir Pratapsingh.

In August 1948, the Dhara Sabha considered the situation arising out of the financial dissipations of the Ruler and passed resolutions demanding his abdication and requesting the appointment of a committee to examine his financial transactions. After discussions with Sardar, Dr. Jivraj Mehta and the President of the Vadodara Congress, the Ruler agreed to grant complete responsible Government without any reservations on 25th August, 1948. The Ruler issued a proclamation embodying the arrangements agreed upon.

On 31st January, 1949 Sir Pratapsingh announced his decision in regard to the merger of the State of Vadodara with Bombay. The merger agreement was signed on 21st March, 1949, and the administration of the State was taken over by the Bombay Government on 1st May, 1949.

PHYSICAL FEATURES

Vadodara district forms a part of the great Gujarat Plain. The eastern portion of the district comprising the Chhota Udepur, Jabugam and Nasvadi talukas is hilly, while the rest of the district is a level plain and undulating. The Narmada and the Mahi are the chief rivers of the district.

The Mahi-Narmada-Doab

It is situated between Mahi and Narmada and is well-known for black soil which is suitable for production of cotton. This doab covers the Vadodara plain which is drained by tributaries of the Narmada, Mahi and Dhadhar. The river Vishvamitri is a dividing line between black soils and red loams. Both the regions are very fertile, but the black soil region presents a desert like appearance when not cultivated whereas the red loam regions are cultivated throughout the year. Between Dabhoi and Sankheda, the soil becomes sandy, and mangroves become more frequent. There are some isolated hills in certain parts but in general the plain is unbroken. The northern part of this plain, formerly a part of the Vadodara State, is more sandy, where the soil resembles the typical deposits of fine yellowish-grey loam. The result is an enormous amount of dissection and gulying carried on by the Dhadhar and its tributaries, all of which are underfit in their channels. The western part of the *doab* is a lowland often faced with problems of drainage. It has soils which share the properties of both, the sandy loam of Vadodara on the north and the black cotton soil of the Narmada Valley on the south. It is, in fact, a problem area with illdrained land, scarcity of fresh water, and a general low productivity.

1. DIXIT K. R. (DR.), *Geography of Gujarat*, New Delhi, (1970), pp. 219-220.

HILLS

The number of eminences deserving the name of hills is very small in the Vadodara district. In Sankheda taluka rather more than 1.60 km., north east by east of Bhairpur rise, occurs a narrow ridge of quartzite which is designated as the Gugalpur hills: it is 4 km., long and rises rather abruptly about 61 metres above the plain to the south and 113.08 metres above sea-level. The boundary between Vadodara and the southern parts of the Panch Mahals runs along the crest of the ridge for about 3.21 km., from west to east and then trends away from the hills which lie east of the land, and on other elevations are met with till 12.87 km., further east, where a spur of Vadodara territory which juts out some 6.44 km., northward, crosses another quartzite ridge, which is called the Achali ridge. The highest point of this ridge, which extends 12 km., from west to east is 270.66 metres above sea-level, the highest point in Sankheda taluka, and about 182.88 metres above the valley of the Samdhi nullah which flows past the eastern end of the ridge. This nullah separates this ridge from the eastern extension of the same quartzite series which extends eastwards some 8 km., more to the Mahabar or Masabar hill, a fine peak rising 353.26 metres above sea-level. Crossing the Orsang river southwards, the first of the island like inliers of the old rocks is met with in Vidwa Swami Mata hill 3.70 km., east of Sankheda. This is a narrow ridge of rock rising about 61 metres above the plain at its higher southern end. At its northern end is a trigonometrical station standing 103 metres above sea-level.¹

About 5.62 km., south by west of Vidwa Swami Mata rises a rather lower hill (87 metres) known as Ghora hill, the eastern end and summit of which lie in Vadodara district. South of this lies a scattered group of small rocky hills which are conspicuous only because of their rising abruptly out of a dead flat. To the east-north-east, at a distance of about 5 km., rises a low ridge close to the south bank of the Heran river, among which lie the well-known Songir sand stone quarries. The ridge is prettily scarped on the north, or river side but slopes gently to the south. A group of higher hills, the Punpawa Dunger, lies just south of these Songir quarries. It affords an extensive view across the greater part of Sankheda taluka to the north and over the Sankheda Mewas to the south, besides being a trigonometrical station which dominates the flat country and affords a very useful land work. The Songir quarry ridge is about 3 km., long and is very much higher at its north-eastern end which abuts on the Heran river in a precipitous scarp; the highest point is 110 metres above sea-level and about 46 metres above the river.

The next hill to be noted known as Kanahae rises 3 km., to the north-east, and is an almost bare rock about 46 metres high above the plain. To

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, *General Information*, Baroda (1923), pp. 14 to 16.

the south-east of it are three low hillocks of the same rock formation, stretching away towards the Heran. This formation is not represented in the bed of the river near Sandia as might be expected. 3 km., south of Sandia is a broken line of large bold rock about $\frac{1}{2}$ km., long; the stone of which is of great beauty. About 1 km., south of the Sandia rocks commences a sandstone rise, which forms the watershed between the Heran and the Ashwan rivers. The southern base of this rise corresponds with the district boundary for rather over 8 km., in an east-north-east direction, when the boundary turns suddenly north, to run nearly 5 km. upto the bank of the Heran, while the rise itself merges into the rapidly rising country east of the boundary. A greater part of the rise, which averages about 2.5 km., in width, is thickly wooded. Much of the surface is too rocky to be arable, but the forest, if conserved, would doubtless be a valuable source of timber.

Near the bank of the Heran at Nathpur the northern edge of the rise forms a well defined low rocky ridge about 1.60 km., long and 182 to 274 metres wide. One km., beyond the north-eastern end of this Nathpur ridge the sandstone rise trends away from the Heran and is bounded along its northern edge by the Lonadra nullah for a distance of 4 km. The ground rises perceptibly as the eastern boundary is approached and attains an elevation of 91 metres above sea-level in the extreme south-eastern corner of the Sankheda taluka. As has already been stated, the sandstone rise here merges into the general slope of the country and is completely lost sight of under a great expanse of cotton soil. North of the Lonadra nullah and a couple of hundred metres from the bend of the Heran river rise two hillocks which are of some geological interest.

One of the chief hills to be noticed in the Sankheda taluka, Lachharas, lies 5.5 km., north-west by west of the Lonadra hills. It is the second highest and largest detached hill in Sankheda taluka, and the trigonometrical station on its summit stands 155 metres above sea-level. The panorama from the top is very pleasing and geographically interesting. The view to the south-east includes five fine peaks of the Satpuda range; to the south are the Rajpipla hills, both ranges being south of the Narmada. To the south-west the hilly tract forming the western part of the Rajpipla range fades away in the distance. To the east, at a distance of 16.90 km., rises in Chhota Udepur, the beautiful volcanic peak of Phenai Mata, supposed with good reasons to have been one of the active vents within the great Deccan Trap area. Phenai Mata is surrounded by several fine hills over which it towers considerably. It attains a height of 481 metres above sea-level. Beyond it, to the east, spurs of the distant Malwa hills may be seen. To the north are sundry hills belonging to Chhota Udepur and Narukota, the finest and most conspicuous being Mahabar or Masabar, the bold rocky peak referred to above which rises 4.82 km., north of Bodeli railway station. The Mural ridge, which extends westward from the peak, is also a remarkable feature.

This completes the enumeration of the eminences along the eastern side of the Vadodara district, excepting only a few hillocks of blown loam in the Sankheda taluka, between the Orsang and Unch rivers, which rise from 7.62 to 9.14 metres above the surrounding country, many of them being all but hidden by trees growing on and around them. The loam hills have a linear arrangement, their axis having a strike of about 15° north of east, which is the prevalent course of the wind, a true sea-breeze, which blows during the early months of the year. A solitary example of such a loam dune to the south of the Unch river occurs about one km., north-west of Kosindra.

THE RIVERS¹

The Narmada and the Mahi are the chief rivers of the district. Besides these two rivers, the Jambuva, the Surva, the Vishvamitri and the Dhadhar flow through the district and empty into the Gulf of Cambay (Khambhat). The Unch, the Orsang, the Sukhi, the Heran, the Dev, the Karjan, the Ashwan and the Bhukhi, etc., are tributaries of the above two major rivers. All the rivers flow westward in the Gulf of Cambay (Khambhat) which is a part of the Arabian Sea.

(1) *The Mahi River*

The old *Gazetteer of Baroda* gives interesting description of drainage pattern of the Mahi river. It states, "No mention need be made here of the great river which flows a few miles north and west of the city of Baroda. In 1856 Colonel Davidson put to the test the navigability of the Mahi, and its possible utility as a passage to the sea for traffic from Vadodara by causing a small steamer to ascend the river as far as Dabka, a village eighteen miles distant from the capital. Three petty affluents pass through the division. The Mini which issues from the tank near Samaliyan in the Jarod sub-division has a course of about twenty-five miles. The Jarod and Mesri rise near Pavagadh and fall into the Mahi at Sinor after traversing about thirtyfive miles of the country."²

The Gazetteer of Baroda State (1946) also states, "A delightful ride of 18 miles over a soft sandy road shaded by the tamarind, the mango, the mahuda and a many a graceful tree leads from Baroda to Dabka, through a park-like country, where an occasional tank such as one at the village of Dabhasa often affords small game shooting. Suddenly the trees grow

1. The account of rivers is based on following sources :

- (i) The Executive Engineer, Water Resources Investigation Division, Ahmedabad.
- (ii) Census of India 1971, *Administrative Atlas*, p. 85
- (iii) The Collector, Vadodara District, Vadodara.

2. ELLIOT F. A. H., *Gazetteer of the Bombay Presidency*, Vol. VII, *Baroda*, (1883), p. 19.

sparser, the great Mahi is approached and deep ravines descend to the low bed of the river. The village stands on the left bank of the Mahi, here some eighty feet high, and a wide view is obtained of the curving river, the plain of the right bank, and in the back ground many miles to the east of the shadowy outlines of the solitary hill of Pavagadh. The hunting grounds lie west, a mile or more to the back of the village. They are encircled by an arc described by the Mahi and a base composed of the hills and ravines of what had once formed the bank of the river which in older time took a wider sweep. This old bed of the river stretches from north to south expanding as it goes. First is a somewhat rugged ground covered with tamarind and juniper in which, if they have not been driven off to the hills and ravines, the pigs have taken refuge. Then there is a forest of babul and along side of it a richly cultivated country with close and high hedges. Expanding still a plain is reached, where riding is impeded only by clumps of bushes and numerous ditches occasionally flooded by the tidal river, which when it recedes, leaves behind a slippery layer of salt mud. Gradually the bushes disappear, the creeks grow wider, and vast plain is seen opposite the village of Tithor, over which roam small herds of antelope."

The river, it may be pointed out, rises near the village Gomanpur in the Vindhya hills of the the Madhya Pradesh State and flows through Rajasthan and Gujarat. It has 5 tributaries and sub-tributaries in this district.

In the Vadodara district the river passes through three talukas, viz., Savli, Vadodara and Padra. In the Savli taluka the Mahi flows past Jambu Goral, Varsada, Kanoda and Pincha villages.

Thereafter it enters the Vadodara taluka and passes by Anagadh and Sindhrot villages. Lastly the river enters the Padra taluka and passes near the villages of Jasput, Ekalbara, Mujpur, Dabka, Karkhadi and Tithor.

After traversing a course of about 115 km., in this district, the river enters the Kheda district and merges into Gulf of Cambay (Khambhat).

At Sevalia, which is a Gauge site of this river the annual average flow in million cubic feet of water is 3,44,872 while the velocity of water at the time of flood per second is 14.43 feet.

(i) *The Mini River*—The Mini river is tributary of the river Mahi. It originates near village Nani Bhedol of the Savli taluka of the Vadodara district. It flows through two talukas in the district viz., Savli and Vadodara. In the Savli taluka it flows near Pasva, Tundav, Anjesar, Moski and Kunpad. Thereafter it enters the Vadodara taluka and flows past Vasna.

Sokhda, Ranoli, Koyli and Sherghi. After a course of 50 km., the river merges in the river Mahi near the village Sindhrot of the Vadodara taluka.

(ii) *The Karad River*—The Karad river with total length of 69 km., issues near the village Ambakhut of Devgad Baria taluka of the Panch Mahals district. It flows for only 26 km., in the Savli taluka. Passing by the Mevli, Parathampura, Amarpura, Dhuntej, Gokulpura and Gulabpura, it meets the Mahi river near the village Ajabpura of Savli taluka of the district.

At Gauge site of this river the annual average flow in million cubic feet of water is 1,567.

(iii) *The Goma River*—The Goma, a tributary of river Karad which itself is a tributary of the river Mahi, originates near the village Kapadi of Devgad Baria taluka of the Panch Mahals district.

In Savli taluka of the district the river flows Sandhasal, Gokulpura, Gutardi and Zumkha. Out of the entire length of the 65 km., it flows for about 18 km., in this district. It merges with the river Karad near village Vintoj of the Savli taluka.

(iv) *The Meshri River*—The Meshri river, a tributary of the Mahi river, originates near the village Kaliakuva of Devgad Baria taluka of Panch Mahals district. In Vadodara district it enters Savli taluka and flows past the villages of the Jesar, Vaktapura, Kadachhala, Chhalier, Shihora and Nara. Out of the total length of 58 km., it traverses about 20 km., in the Vadodara district. It meets the river Mahi near the village Shihora of Savli taluka.

(v) *The Kawach River*—The river Kawach, a tributary of Meshri river, which itself is a tributary of the Mahi river, originates near village Sureli of Kalol taluka Panch Mahals district. Out of its total length of 32 km., it flows for about 16 km., in the Savli taluka of this district. It passes near Andrakhiya, Pandu, Latva and Rajpur villages of Savli taluka. It meets the river Meshri near village Chhalier of the same taluka.

(2) *The Dhadhar River*

The river Dhadhar takes its rise in the hills south of Pavagadh near Shivrajpur about thirty miles (48 km.) north east of the village Bhilapur where it is crossed by a stone bridge on the road from Vadodara to Dabhoi. It passes through five talukas, viz., Vaghodia, Dabhoi, Vadodara, Karjan and Padra. In the Vaghodia taluka it flows past Valagod, Khandivada, Tarasva and Vaghodia villages. In the Dabhoi taluka it passes by Naranpura, Dholar, Kaddhara, Thuvavi and Anguthan villages. Thereafter in Vadodara taluka

it traverses by the villages of Patarveji, Kashipura and Gosindra. It then flows through Karjan taluka and passes by Pingalwada, Abhara and Virajai villages. Lastly in the Padra taluka it touches following villages, viz., Kotna, Vanchhra and Ranoli. Thereafter it enters the Bharuch district to merge in the Gulf of Cambay at village Gandhar of Vagra taluka. Its total length is 170 km., and flows for about 80 km., in the Vadodara district. It has in all 5 tributaries and sub-tributaries in this district.

(i) *The Dev River*—The Dev river, a tributary of the river Dhadhar, originates near the village Jhinjhari of Devgad Baria taluka of Panch Mahals district. It enters this district near Goraj village of Vaghodia taluka. It passes near Vaswel, Tavra, Vyara and Antoli villages of Vaghodia taluka. Thereafter it enters the Dabhoi taluka and traverses near Vanadra, Karalipura, Dholar and Pragpura. Out of its total length of 38 km., it flows only for 14 km., in the Vadodara district. The Dev river meets the river Dhadhar near village Abdalpura of Dabhoi taluka of the district.

(ii) *The Vishvamitri River*—The Gazetteer of Baroda states that 'The Vishvamitri takes its rise from the hills of Pavagadh which is some twenty-seven miles (43.45 km.) distant to the north-east of Vadodara city. A few miles higher than the spot on which Vadodara stands and not far from the village of Vishveshwar, the Vishvamitri is joined by another stream called Surya, which also takes its rise from Pavagadh, a little to the south of the Vishvamitri. The little river then continues its course in southerly direction till it joins the Dhadhar at Pingalwada, some fifteen miles (24.14 km.) south of Vadodara.'

About the origin of the river the *Skandha Purana* gives the following legend :

"A pious Brahman, who long ago dwelt in Champaner (Champavati) situated in the Shankar forest, resolved one day to cut his head and offer it to his god Shiva, here known as Kapileshwar. But the god prevented the blood falling on him, sank deep into the earth, and so created a great void. Into this yawning gulf once fell the sacred cow, *kamdhenu*, of the sage Vishwamitra. To rise to the surface again she sought the advice of the god, who told her to let the milk flow from her udders till she floated to the surface. To prevent a similar accident from recurring the sage ordered the Himadri mountain to throw itself into the gulf. It did so, but its square summit remained above the plain. Kapileshwar mounted on its summit, now known as Panchamukhi and the Ratnakar, who accompanied Himadri when he jumped into the hole, now takes the name of Ratnamala range. The sage Vishwamitra, at the desire of the people of Shankar forest cursed and destroyed the demon Pavak (Pavagadh), and blessed the whole of the river. Rama and Lakshman visited him on their return from their expedition

against Ravana, and on that occasion Vyas and other sages came to see Vishwamitra at Vyaseshwar. Meanwhile, Rama when Lakshman and Maruti had failed, slayed the demon Hiraniksha at the spot now known as Harni, but his teeth were left at the village called Danteshwar. Kamnath, to the north of Harni, is another place famous for the blessing of sons here given by Shiva to his devotees. The bones of the dead bodies thrown into the Vishvamitri near this spot are blessedly dissolved into the water".¹

The river is tributary of the river Dhadhar. In Vadodara district it enters the Vaghodia taluka and flows past Sarnej, Asoj, Jarod and Kamrol villages. Thereafter it enters Vadodara taluka and passes by the Dena, Harni, Chhani, Vadodara, Bhayli, Makarpura and Varnama villages. Then it enters Padra taluka and touches Husepur and Virpur villages. Lastly the river traverses the Karjan taluka and it meets the river Dhadhar near village Pingalwada. Of its total length of about 70 km., it flows for 58 km., in the Vadodara district.

(iii) *The Surva River*—The Surva river, a tributary of the river Vishvamitri, emerges from the hill ranges of Pavagadh near village Vav of Halol taluka of the Panch Mahals district. Of its entire length of 42 km., the river flows for about 30 km., in two talukas of Vadodara district, viz., Vaghodia and Vadodara. In the Vaghodia taluka it flows past Vyankatpura, Kotambi, Rasulabad, Bhaniyara and Morlipura villages. Thereafter it enters Vadodara taluka and passes near the villages of Virod, Amliyara, Kotali and Sukhlipur. It meets the river Vishvamitri near village Kotali of Vadodara taluka.

(iv) *The Jambuva River*—The Jambuva, an another tributary of Vishvamitri, issues from near the village Vesania in Vaghodia taluka of Vadodara district. In Vaghodia taluka it flows past Nimetha, Gajarda, Alva, Limda and Mastupura villages. Thereafter it enters Vadodara taluka and passes by Tatarpura, Kelanpur, Jambuva, Tarsali and Chikhodra. It flows entirely in the Vadodara district for about 52 km., and near village Khalipur it merges with the river Vishvamitri.

(v) *The Rangal River*—The river Rangal is also the tributary of the Vishvamitri river and originates near village Karmal in the Dabhoi taluka. In this taluka it flows past following villages, viz., Karvan, Habibpura, Parikha, Sathod, Shirola and Fofaliya. Thereafter it enters into the Karjan taluka and passes by Gandhara, Kandari Bamangam and Sayar villages. Its entire course of 37 km., is in Vadodara district and it meets the river Vishvamitri near village Pingalwada of Karjan taluka.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, *General Information*, Bombay, (1923), pp. 30-31.

(3) *The Narmada River*

This is the largest river not only in the Vadodara district but in the Gujarat State. It has as many as 15 tributaries and sub-tributaries in this district. The source of the Narmada is in the hills of Amarkantak, in the Bilaspur district, 3,500 feet (1066.80 metres) above the sea level in the Madhya Pradesh State. After descending from the hills in which it rises, and until it reaches the Gujarat plains the course of Narmada for about 500 miles (800 km.) lies between the Vindhya range on the right and the Satpuda range on the left. Throughout this distance the valley of Narmada is narrow. The mountain ranges on either side with an average distance of from 18 to 26 miles (29 km. to 42 km.) and nowhere more than forty miles (64 km.) apart.

The following legend extracted from *Rewa Purana*, shows the popular feeling of the Hindus towards the holy river. "The Narmada is said to have sprung from God Rudra or Mahadev and so is known as *Rudradhari* or *Shankari*, the Mahadev's daughter. According to this account, she is represented as a virgin wooed by the sea. According to another account, she was married to *Shadmak*, the son of *Agni*, the son of *Brahma*, and from their union was born *Dhrustrindra*, the champion of the gods in their war with the demons. The devotees of the Narmada place its sanctity above that of any other river. Freedom from sin, they say, is obtained by bathing for three days in the Saraswati, or for seven days in the Jamna. In the Ganges, one day is surely enough, while the mere sight of the Narmada suffices to make one free from guilt. The purifying power of the Ganges is confined to its northern bank. But the virtue of the Narmada, not only extends to both its banks, but is felt thirty miles (48.28 km.) northward, and eighteen miles (28.96 km.) southward, so that an ablution in any pool or well of water within that distance is as meritorious as bathing in the Narmada itself. As one of the glories of the Narmada, it is said that once a year, about the end of April (Vaishakh Sud 7th), the Ganges wanders in the form of a black cow to the Narmada, and bathing at the village of Nanderia, near the town of Chandod, gets rid of the dark colour, and comes from the water free from all her stains. So holy is the water of the river that, as it flows, the very stones in its beds are worn into the shape of emblems of Mahadev. According to the proverb, *Narmadana kankar, tetla Shankar*, that is, 'The pebbles of the Narmada are (emblems of) Mahadev'. The days and seasons in which bathing in the Narmada is especially enjoyed belong to three classes : (i) of the ordinary months, the latter half of September-October, *Ashvin* and the first half of October-November, *Kartik*, as well as in July-August, *Shravan* and in each month the 8th, 12th, 14th, 15th and the last day, *Amas*; (ii) the intercalary months; and (iii) on special occasions such as eclipses. During intercalary or *Adhik* months, the ceremony of visiting the different sacred spots, *Panchatirth*, is performed. On these occasions crowds of worshipers sail up the river in boats,

bathing at each of its sacred spot and giving charity to Brahmins. So full of holiness, is the Narmada, that from Maharudra to Bahuchraji, a distance of less than three miles (4.82 km.), no fewer than fifty-five places have to be visited on the occasion of the *Panchtirth* festival.

An oath on the water of the Narmada has a special sanction. Few Hindus would dare to swear falsely standing in the river with a garland of red flowers round the neck, and holding in the right hand the water of the sacred stream."

The Narmada traverses through 6 talukas in Vadodara district, viz., Chhota Udepur, Naswadi, Tilakwada, Dabhoi, Sinor and Karjan. In the Chhota Udepur taluka it flows past Hanf, Pandhariya, Turkheda and Kotbi villages. In the Naswadi taluka it passes by the Antras village. In Tilakwada taluka it touches Vasan, Tilakwada, Chudeshwar, and Navapura villages. In the Dabhoi taluka it traverses by Karnali, Mandva, Chandod and Nanderiya villages. Then it enters Sinor taluka and passes by Moletha, Zanzad, Kanjetha, Sinor, Surasmal and Diver villages. Thereafter the river enters Karjan taluka and flows past Ranapur, Kothia, Samara, Malod, Sagdol, Moti Koral, and Pachhiyapura villages. It flows for about 128 km., and enters Bharuch district to merge in the Gulf of Cambay (Khambhat) near village Hansol of Ankleshwar taluka of Bharuch district.

(i) *The Orsang River*—The river Orsang is also called the Or river. It is a tributary of the Narmada river. It rises near the village of Pava of the Jhabua district in the Madhya Pradesh State and enters the Gujarat State in the Chhota Udepur taluka. In this taluka it flows past villages of Simalkuva, Khadakvada, Nana and Mota Rampura, Rajuvant, Jamla, Chhota Udepur, Tejagadh and Maldhi. Then it flows in the Jabugam taluka and traverses near Mesara, Jetpur, Jabugam and Vanta villages. Thereafter it enters Sankheda taluka and touches Bodeli, Bamroli, Vadeli, Sankheda, Pipalsath and Ratanpur villages.

Lastly, it enters the Dabhoi taluka and flows past Bhilodiya, Chandavada, Akoti and Bhalodra villages. Its total length is 135 km., and it flows for about 128 km., in the district. The river merges with the Narmada near Chandod and Karnali villages of Dabhoi taluka.

During the rainy months the passage is often dangerous if not impossible, owing to the heavy floods which then occur, while at the best of times, the sand makes the crossing a tedious process. The descent into the river from Bahadarpur is easy, but the ascent on the Sankheda is difficult the ground being much cut up by ravines. At Bodeli, which is a Gauge site of this river the annual average flow in the million cubic feet

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, (1923), pp. 25,26.

of water is 36,606, while the velocity of water at the time of flood per second is 9.97 feet.

(ii) *The Ani River*—The Ani river, a tributary of the river Orsang, which is in turn a tributary of river Narmada, originates in the Madhya Pradesh State. Of its total length of 38 km., the river flows for about 30 km. in the Chhota Udepur taluka of the district. In this taluka it flows near the villages of Jadiyahana, Ukhalvant, Kanavant, Petiya, Chorvana, Jaloda, Achhala and Timla. It meets the river Orsang near village Tejgadh of Chhota Udepur taluka.

(iii) *The Sukhi River*—The Sukhi, a small tributary of Orsang, originates in the Madhya Pradesh State. Of its total length of 53 km., it flows for 41 km. in Gujarat. It flows past Chhota Udepur and Jabugam talukas. It passes by Dolariya, Mandalva, Tenaliya and Kikawada villages. Thereafter the river enters Jabugam taluka and traverses near villages of Sagadra, Dungaivant, Gambhirpura, Sajod, Thalki and Sithol. It merges with the river Orsang near village Sihod of the Jabugam taluka. At Kikawada, which is a Gauge site of this river, the annual average flow in million cubic feet of water is 5,096 while the velocity of water at the time of flood per second is 6.1 feet.

(iv) *The Vasva River*—The Vasva river, a tributary of river Sukhi, originates near the village Kakadkund of the Chhota Udepur taluka. The river flows past the villages of Marchipani, Dobachapra, Limbani and Vachalibhit of Chhota Udepur taluka. Thereafter the river enters Jabugam taluka and after its course of 21 km., it merges with the river Sukhi near village Lunja of the same taluka.

(v) *The Suki River*—The Suki, a tributary of river Orsang, originates in the Jabugam taluka. In this taluka it passes near villages of Ranbhun, Amalpur, Jivanpura and Timbi. It meets the river Orsang near village Simalia of Jabugam taluka. Its total length is about 24 km.

(vi) *The Unchh River*—The Unchh, a tributary of the river Orsang, originates near village Ghodiala of Jabugam taluka of the district. In this taluka it flows past Ambajati, Bhindol, Undava, Valpari and Chundheli villages. Thereafter it enters the Sankheda taluka and traverses the villages of Panij, Khodia, Chhachhadra, Amroli, Deroli, Khandupura, Nagarwada, Handod and Sankheda. Its entire length is 62 km., and it meets the river Orsang a little below the Sankheda town.

(vii) *The Galetho River*—The Galetho, a small rivulet originates near village Bordha of Jabugam taluka and passes by the villages of Nani Amrol and Bandi. After a course of 8 km., in this taluka it merges with the river Unchh near village Saloj of Jabugam taluka.

(viii) *The Tokarva River*—The Tokarva, another tributary of the Unchh river originates near village Degala of the Jabugam taluka. It flows past Sajuli village. It meets the river Unchh near the village Zab after a course of 12 km., in the Jabugam taluka.

(ix) *The Manian River*—The river Manian, another tributary of the river Unchh, starts near village Sankhadra of Jabugam taluka. In this taluka it flows near villages of Dharalia and Intvada. Thereafter it enters the Sankheda taluka and traverses near villages of Saniadri, Ganeshvad, Ladhod, Chhachhadra and Timbi. Its total length is 32 km., and it merges with the river Unchh near village Kachhata of Sankheda taluka.

(x) *The Heran River*—The Heran, a tributary of the river Orsang, originates in the Madhya Pradesh State and enters the Gujarat State in the Chhota Udepur taluka. In this taluka it passes by the following villages, viz., Tava, Kanalva, Dhanpur, Kaidavant, Jaroi, Mugalvant and Uncheda.

Thereafter it enters the Jabugam taluka and traverses the villages of Juna and Nava Timbarva, Chalamali, Badalia, Athavali, Vadivada and Rajvasna. Afterwards the river passes through the Sankheda taluka and touches following villages on its course : Kosindra, Parvati, Sajanpura and Chamarwada.

Then the river enters Tilakwada taluka and flows near villages of : Karchi, Jalodra, Vora and Shahpura.

Lastly it enters the Dabhoi taluka and traverses near the villages of Nagdol, Araniya and Bhilodiya. Its total length is 98 km., and it runs for 85 km. in this district. It meets the river Orsang near village Bhilodiya of Dabhoi taluka of the district.

At Rajvasna, which is a Gauge site of this river, the annual average flow in million cubic feet of water is 15,339.

(xi) *The Karanala River*—The Karanala river a tributary of river Heran originates in the Madhya Pradesh State and enters the Gujarat State in Chhota Udepur taluka. In this taluka it flows near the following villages, viz., Jamli, Navalja, Kavant, Undva, Raysingpura, Umathi and Palashkuva. After running a course of about 25 km., it meets the river Heran near village Narukot.

At Kavant, which is a Gauge site of this river, the annual average flow in million cubic feet of water is 4,772, while the velocity of water at the time of flood per second is 7.47 feet.

(xii) *The Rami River*—The Rami river, a tributary of river Heran, originates near village Saidivasan of Chhota Udepur taluka. It flows near

following villages of the Chhota Udepur taluka, viz., Galesar, Athadungari, Deri and Vijli.

After a course of 16 km., in the Chhota Udepur taluka, it meets the river Heran near villages Vanta.

(xiii) *The Ashwan River*—The Ashwan river, a tributary of the Narmada river originates near the village Katkavant of the Chhota Udepur taluka. In this taluka, it flows past following villages, viz., Gajlavant Nalvant and Khandaniya. Flowing through the Nasvadi taluka, it traverses by the villages of Khadakiya, Damoli, Kolamba, Kandva, Rampuri and Dhamasia. Then it enters the Tilakwada mahal and flows past the villages of Surajipura, Kandlej, Sandula, Pichlipura, Shisan, Gamod, Nalgam, Mora and Nalia.

Its total length is 64 km. It meets the river Narmada near village Chudesar of Tilakwada mahal.

(xiv) *The Men River*—The Men river, a tributary of the river Narmada issues near the village Bhundmaria of Chhota Udepur taluka. It then enters the Nasvadi taluka and flows past the villages of Navi Jaduli, Khermal, Dugha, Mediya, Fulwadi, Bilgam, Gadh, Honli, Khusalpura, Bhutkhan, Vantda, Amroli Vadadli and Jemalgadh. Afterwards the river passes through the Tilakwada mahal and flows past the following villages, viz., Vamkol, Indarma, Devaliya Uchod, Jiral and Tilakwada. After running for about 55 km., it meets the river Narmada near village Tilakwada, which is also the taluka headquarters.

At Ghoda, which is a Gauge site of this river, the annual average flow in million cubic feet of water is 3,010 while the velocity of water at the time of flood per second is 16-17 feet.

(xv) *The Bhukhi River*—The Bhukhi river, tributary of the river Bhadar, is also known by another name called 'Bhukhi Bhadar.' It originates near the village Nana Karala of the Sinor taluka. In this taluka it traverses by the villages of Vaniad, Avakhal and Sadhli. Thereafter it enters the Karjan taluka and flows past the following villages, viz., Samari, Methi, Siniyad, Sarnig, Karan and Sanapur. It then enters the Bharuch district. The river has a total length of 85 km., and flows for about 40 km., in the Vadodara district. It meets the river Bhadar near village Keshrol of Bharuch taluka.

GEOLOGY

The earliest writer known to have written about rocks actually within the limits of the former Vadodara State was Dr. Charles Lush. A paper

1. The Director, Geological Survey of India, Gujarat Circle, Ahmadabad.

entitled "Geological Notes on the Northern Konkan, and a small portion of Guzerat," was published in the *Bengal Asiatic Society's Journal*. (Vol. I., p. 763, 1863).

A few remarks on Geology of Vadodara State appear in Lieut. (afterwards Major) Fulljames's paper, 1838. He referred, *inter alia*, to the lowness of the south side of the City of Baroda.

The next writer who dealt with the Geology of Baroda territory was Mr. John Vanpell, who published a brief paper with the title "Desultory Notes and Observations on Various Places in Guzerat" in the *Proceedings of the Bombay Geographical Society* (February 1839, Vol. II., pp. 51-52.). Some remarks on geological features occurring within Vadodara territory were made by Mr. A. B. Wynne, F. G. S. of the Geological Survey of India in his geological notes.

It was in 1891 that the first systematic geological survey was made. In this year Mr. Bruce Foote, of the Madras Geological Survey, was appointed by the State to make a survey of its geological resources. Mr. Foote examined closely all the minerally important regions lying within the limits of the State both in Gujarat and Kathiawad and published his book "The Geology of Baroda", in 1898. With a view to determine the economic value of the various geological deposits Mr. V. S. Sambasiva Iyer, of the Mysore State Geological Department, was employed in 1908 to make another survey and to report on the mineral resources of the State which could be developed on a commercial scale. Mr. Iyer's report was published in 1910.

The following rock formations, arranged in descending order of their antiquity, are met with in Vadodara district :

Kankar, Alluvium, Soil, etc.	Recent and Sub-Recent
.....	Erosional Unconformity.....
Deccan Trap Complex Basic, acidic....	Cretacio-Eocene.... Mesozoic-.....
lava flows. Basic and alkaline dykes.	Tertiary.
.....	Eruptive Unconformity

1. Baroda State, *Gazetteer of the Baroda State*, (1946), pp. 7 to 9.

Infratrappean

(Bagh-Nimar sequence)

Intercalated sequence Middle to Upper Mesozoic
 of pebbly conglomeritic sandstone ; Cretaceous
 fossiliferous limestone with shaly
 bands.....

..... Erosional Unconformity.....

Granites and gneisses with associated Post Delhi
 pegmatites and quartz veins.

Phyllite with calcareous inter-cal- Upper Champaners...
 ations towards bottom. Quartzite
 and grits with phyllitic intercala-
 tions-manganese bearing at the top
 Jaban Conglomerate

..... Erosional Unconformity..... Pre-Cambrian

Quartzite with phyllitic intercalation. Lower Champaners...
 Dolomitic limestone, phyllite and
 mica schist-occasionally graphitic.

Quartzite and quartz schists.

Bhamaria Conglomerate

..... Erosional Unconformity.....

Intercalated sequence of Quartzites Upper Aravallis
 and Grits, mica schists and phyllites,
 conglomerate.

..... Erosional Unconformity.....

Conglomerate, grits, Quartzites Lower Aravallis
 mica schist, paragneisses, granite
 gneisses.

Major portion of the Vadodara district in western part is covered by thick pile of alluvium. The metasediments of Champaner Series of pre-Cambrian age exposed in parts of Vadodara and Panch Mahals

districts in Gujarat were correlated with the Aravallis in the past. However, detailed stratigraphic and structural studies in recent years have now resulted in the sub-division of the metasediments of this region into "Champaner Series" underlain by two older sequences. An interbedded sequence of argillaceous, arenaceous and impure calcareous rocks, constituting the Champaners, rest unconformably over a suite of micashists, quartzites grits which in turn lie unconformably over a sequence of mica-schists, quartzites, grits and paragneisses.

The Champaners themselves are divided by the Jaban Conglomerate horizon into Lower and Upper. The sequence is thrown into anticlinorium consisting of a system of folds on WNW-ESE axes showing moderate WNW plunge. Shearing along definite zones and development of longitudinal and cross faults are the other characteristic structural features. The pre-Champaner metasediments show relatively more complex structure. Two types of folds have been observed in the pre-Champaners. The Lower Aravalli folds trend NNW-SSE while the upper Aravalli fold axes trend ENE-WSW to NE-SW.

The exposures of the metasediments of pre-Cambrian age are found in the areas adjoining to Jambughoda, around Khandia, Chhota Udepur, Naswadi and Pani Mines.

The intrusive granites and gneisses which are thought to be equivalent of Eranpura granite of Rajasthan occupy a wide stretch of area extending from south of Sagtala in the north, in Panch Mahals to Naswadi in the south and between Jambughoda in west, in Panch Mahals and border of Madhya Pradesh in the east.

Marine equivalent of Lametas which are occurring below Deccan Trap elsewhere are represented by Nimar-Bagh-beds in Vadodara district. The sediments of Nimar-Bagh-beds are exposed to the north of Khandia in the north, while in the southern part they are exposed near Songir, Sankheda, Ghantoli, Naswadi, Vajiria, Mohan Fort and Ambadungar.

The Deccan Trap basalt and associated intrusives, which form low lying hills in the northern part of the district around Timba and Samalaya and the western hill slope of Pavagadh hills occur as part of high hill ranges near Ambadungar and Mohan Fort.

LOWER ARAVALLIS

The Lower Aravalli sequence of rocks consist of a suite of older metamorphic rocks represented by granite gneisses and caught up patches of metasediments such as phyllite, biotite schists/gneisses and quartzites.

The gneisses and schists exposed at the core of an anticline near Poyalli consist mainly of quartz, feldspars, biotite and hornblende. Outcrops of Lower Aravallis found in the Jhand Valley, NW of Targol and Lambhia, are represented by greyish coarse grained gneisses with caught up patches of metasediments. Due to profuse lit-par-lit injection of granitic material into the metasediments in Orsang river bed near Padalia, in Ani river bed and south-east of Jamla, the original characteristics of the metasediments have been obliterated and they have been transformed into arterite. Quartzites of Lower Aravalli age are exposed as low ridges trending NW-SE near Harparpura and south of Bhilpur where the quartzite ridges trend WNW-ESE.

In the area around Chhota Udepur, the rocks of Upper Aravallis are missing and the dolomitic limestone and calc-silicate rocks belonging to Lower Champaners directly rest over the biotite gneiss and quartzites of Lower Aravallis.

UPPER ARAVALLIS

The pre-Champaner schistose sequence exposed to the south-west of Jambughoda and north of Khandia comprises basal conglomerate, well bedded quartzite and grit, mica schists and phyllites with another quartzite and horizon towards the top. Primary sedimentary structures are well preserved in the arenaceous units. To the NE of Khandia, in the area falling in Panch Mahals, there occurs an elliptical shaped granitic intrusion within the exposure of pre-Champaner rocks. The pre-Champaner rocks of Upper Aravalli age are not exposed beyond Jambughoda in Panch Mahals and as such rocks of Lower Champaners are directly resting on the Lower Aravallis.

The conglomerate at the base of Upper Aravallis occurs as discontinuous bands in the area south of Lambhia, north of Nani Raski, Kojwa and Masabar. The pebbles and boulders of conglomerate large consist of quartz and quartzite and mica-schist embeded in dark schistose and gritty matrix. The conglomerate towards their tops tend to become quartzitic and grade into quartzite.

CHAMPANER SERIES

A major part of the Champaner Series is exposed in Panch Mahals district and only a part of it occurs around Pani Mines, Khandia, Chhota Udepur in Vadodara district. The Champaner Series is essentially composed of arenaceous and argillaceous metasediments which are represented by quartzites, phyllites and mica schists with bands of dolomite and limestones. The Jaban conglomerate which divides the Series into Upper Champaners and Lower Champaners occurs as lenses and contain pebbles of quartzite,

mica schists, limestones, gneisses and granites. The quartzite and schists, on either side of the conglomerate are very similar in nature and are conformable. The conglomeratic horizon can be traced laterally through the sinuous fold pattern north wards up to west of Pani Mines, where a distinct angular unconformity is found to separate the Lower and Upper Champaners. Original sedimentary structure like bedding is found in the metasediments at several places.

LOWER CHAMPANERS

The Lower Champaners in a type area NW Jambughoda in Panch Mahals consist of Bhamaria conglomerate at the bottom with pebbles and cobbles of quartzites and quartz schists. The dolomite limestone intercalated with phyllite and mica schist occurs in the middle of the sequence, while the top of the sequence comprises quartzite with phyllitic intercalations. The phyllite and mica schist of argillaceous units of metasediments are graphite bearing.

In Vadodara district, the Lower Champaners are found to the north of Chhota Udepur and are represented by crystalline limestone around Bervi, Chathawara, Haroli, Kachel, Kanwat and Jher, where they are intruded by younger granites and basic intrusions. The colour of the limestone is generally whitish, but locally exhibits brown colour. Serpentine bands of thickness of about one cm. to 26 cms. are commonly seen. In Orsang river bed, south of Bervi, these bands are distinct, imparting light green shades to the crystalline limestone. The presence of termolite is observed in a few outcrops mainly to the west of Bervi. Towards north and northwest, the colour of the limestone is light brown and it is dolomitic. Along the contact of intrusives, the limestone is converted to a fine grained white marble.

The dolomite occurring between Kachel and Dhamori, extends over a strike length of 8 km., with maximum width of 2300 m. Preliminary study of the dolomite band indicated 2.17 per cent to 14.82 per cent insolubles, 27.5 per cent to 44 per cent $MgCO_3$ and 47.5 per cent to 63.5 per cent $CaCO_3$ over a greater part of the area.

UPPER CHAMPANERS

The composition of sediments of Upper Champaners appears to have been changed from earlier dominantly arenaceous sequence to mainly argillaceous sequence later. The Jaban conglomerate which separates Upper Champaners from Lower Champaners, is of the nature of greywacke conglomerate. The conglomerate is followed by quartzite and grits with phyllitic intercalations. This quartzite with phyllitic intercalation is followed upward by phyllitic group, at the base of which there is a discontinuous horizon of silicious limestone. At the contact between quartzite and the overlying

phyllite, there are some manganiferous phyllites, the most prominent of which are exposed at Shivrajpur in Panch Mahals district and Pani Mines in Vadodara district. At the top of the sequence there occurs calcareous quartzite and calc-gneisses.

The rocks of Upper Champaners which are exposed to the north and east of Pani Mines in Vadodara district are quartzite, phyllites, calcareous quartzite, calc-gneiss and limestone. The quartzite being more resistant to weathering form low ridges in the area. The quartzites are manganiferous at places. The phyllites are dark grey in colour and vary in hardness and fissility. Magnetite in the form of veinlets and grains are present in the phyllite.

Limestone bands interbedded with phyllite extend from just west of village Pani to Ghanta Railway station and from south of village Chelvad to village Gandhra. The limestone contains argillaceous impurity and is traversed by stringers of quartz veins which stand out prominently on weathering.

Granites

The metasediments belonging to pre-Cambrian age have been intruded, on a large scale, by different types of granites. The intrusive granites occupy a wide stretch of area extending from north-west of Godhra in Panch Mahals district upto the border of Madhya Pradesh in south-east and again from about 10 km., north-east of Jhoj to south of Bodeli in Vadodara district. The intervening area between Jhambughoda in Panch Mahals district is also occupied by the intrusive granite.

At present the geologists are confronted with the problem of correlation of pre-Cambrian metasediments occurring around Jambughoda in southern Panch Mahals with the exposures found elsewhere in the State and also with the Aravallis and overlying Delhi (rocks) of Rajasthan since the exposures of pre-Cambrian metasediments are surrounded by intrusive granites which are thought to be equivalent of Eranpura granite.

The granites separating the Champaner Schist Belt from the Aravallis have been mapped by various workers as two or three distinct types. The varieties noticed are a medium to coarse grained, non-porphyritic, grey granite and somewhat similar pinkish variety is more potassic and porphyritic. In the south-eastern and central parts of the area, the normal sequence of plutonic differentiation is illustrated by compositional change from sodic variety, almost grandiositic in composition to a normal grey granite composed of microcline, microperthite, quartz and subordinate albite. Occasionally showing intrusive relationship with these is the more potassic variety richer in microcline.

The pegmatite and quartz veins which represent pneumatolytic phase of igneous activities associated with granite traverse the granites and metasediments at number of places. The pegmatites occurring near Ojri and Jhoj are traversing the dolomites, schists and gneisses and consist microcline and quartz. The feldspar crystals range from 1 cm. to 10 cms. in size. Tourmaline crystals ranging from a fraction of cm. to 3 cms. in length are present in the pegmatite.

Infratrappeans

The Infratrappean rocks (Nimar-Baghs) occurring as elongated outcrop in the Narmada valley, around Khandia in the north and elsewhere in the district are considered to be marine equivalent of Lametas (fresh water) found in Madhya Pradesh. They comprise intercalated sequence of pebbly conglomeritic sandstone and fossiliferous limestone with shally intercalations. The gritty sandstone found at the base of sequence is termed as Nimar Sandstone, while the overlying limestones, shales and sandstones are considered as Bagh beds. The typical exposures of Nimar-Bagh sequence occur north of Khandia in the north; around Naswadi in the south and at Ambadungar and Mohan Fort in Chhota Udepur taluka.

Near Khandia, Cretaceous sediments comprising conglomerate, felspathic gritty sandstone and calcareous chert lie unconformably over Upper Aravalli metasediments. Exposures of these sediments are also found in the Deo river where they show dips ranging from 4° to 40° towards north-west.

In the southern part around Naswadi and adjoining parts of Bharuch district, the Infratrappeans occur as large elongated exposures trending ENE-WSW with dips varying from 8° to 15° towards SSE. South of Naswadi and east of Vajiria, they lie unconformably over either pre-Cambrian metasediments or granites (Erinpura). In the Western part of the area, inliers of Infratrappeans are exposed towards south-east of Uchad.

The basal sandstones which is marked by conglomeritic horizon imperceptibly grade upwards into coarse grained sandstone. However, a thin band of purple shale separates the two sandstone horizons in the area south-east of Naswadi. The coarseness of Upper sandstone suggest the shallow water deposition. However, occurrence of fossiliferous shaly limestone at the top of the sequence exposed NNE of Uchad in the Narmada river bed and south-east of Gora indicate deepening of the basin during the later phase of deposition of Infratrappeans. The shaly limestone carries rich assemblages of marine fossils which are too ill-preserved to help specific identification but they appear to belong to the Oyster bed horizon of the Bagh beds.

The chemical analysis of shaly limestone occurring at the top near Naswadi indicate CaO content varying between 14.55 per cent to 46.11 per cent and insoluble ranging from 5.82 per cent to 47.18 per cent.

The sedimentary sequence of Bagh-Nimars comprising gritty sandstone (Nimar) overlain by Bagh limestones, shales and sandstones near Ambadungar have witnessed intense faulting and Deccan Trap Vulcanism. The Bagh-Nimars in the area are exposed as inliers within basaltic flows of Deccan Trap. In the adjoining areas of Ambadungar in Kara nala near Mohan Fort, the Bagh-Nimars are represented by medium to fine grained and gritty sandstones with two intercalated beds of ferruginous clay. The sandstone strike almost E-W and show dip towards south; but along northern boundary they show northly dips, which is perhaps due to proximity of fault.

Near Limdi in the same area these sandstones are overlain by thinly bedded calcareous shales and arenaceous limestones which have yielded one Cretaceous Ammonite and several fossil shark teeth. Similar fossil teeth are also found around Moti-Chikli, Mongra and in the cultivated tracts between Mongra and Khasra. The occurrence of thin bed of conglomerate near Luni, Balwa and Balawat resting unconformably over pre-Cambrians and separating them from the overlying lava flows perhaps suggests the northern limit of the Cretaceous basin in the area. The progressive increase in the thickness in the sediments southwards and preponderance of limestone in the Ambadungar area suggest the deepening of the basin southwards.

The Bagh sediments occurring in the Narmada valley have been subjected to system of faults, sympathetic to main Narmada rift in ENE-WSW and NE-SW direction. The WSW trend of the Narmada river in the eastern part is deflected towards NW from Surpan upto about 6 km. north-west of Tilakwada and then reverts to the SW upto Bharuch. This deflection is attributed to the north-south to NNW-SSE faults in the Deccan Traps and alluvium. This north-westerly deflection of the Narmada river, along the NW trending faults with downthrow towards the south-west has obviously resulted in confining Bagh sediments and Deccan Trap exposures to the north-east bank.

The other major river—Heran, Ashwan and Men together with Orsang, as also number of rivulets, flow along fault zones parallel to main ENE-WSW trend of the Narmada river. A number of cross faults run in NW-SE directions, some of which have brought about considerable displacement of the Bagh sediments. One such major displacement appears to be along Narmada river itself.

Deccan Traps

The Deccan Trap suite of rocks comprises basic and acidic lava flows and the associated dykes and sills which occur as intrusives into lava flows. The intrusives are chiefly dolerite, trachy basalt, gabbro, granophyre and alkaline rocks like nepheline syenite, phenolite, ijolite and lamprophyre.

In the northern part of the district, the outcrops of Deccan Traps are few and scattered among which Pavagadh hills, which though occupy a very little portion of the district deserves special mention because of the diversity of rocks exposed in Pavagadh hills. Important exposures of the Deccan Trap suite or rocks occupy the southern and south-eastern parts of the district around Phenaimata, Ambadungar, Kanwat, Mohan Fort, etc. The Deccan Traps in these areas form comparatively rugged topography.

At Pavagadh hills, there are diverse types of lava flows which have attracted the attention of many geologists. The basic lavas in the hills are amygdaloidal basalts which are typical of Deccan Trap formation. The interbedded acid lavas comprise varieties of rhyolites and dacite. These rhyolites resemble some varieties of Deccan Traps in Saurashtra as also Malani rhyolites of Rajasthan. Recent studies have indicated that the rhyolites and dacites of Pavagadh hills exhibit a petrological consanguinity with the basaltic lavas with which they are interbedded and the acid and basic varieties are the products of magmatic differentiation from a single parent magma.

In the area around Naswadi and Chhota Udepur the volcanic activities have taken place on a large scale. The Deccan Traps which occur around Naswadi comprise fine grained, amygdular and porphyritic lava flows. In the Phenaimata hill and adjoining areas there occurs trachy basalt, gabbro, granophyre and nepheline syenite which have intruded into the earlier formed Trap flows.

The Ambadungar and adjoining areas have witnessed intense volcanic activities and exhibit varieties of rock types.

There are two main rock types in the area, viz., the Cretaceous sedimentary sequence of Nimar-Bagh age and the succeeding volcanics intrusives belonging to the Deccan Trap suite. Included in the latter are a suite of igneous rocks such as basalt flows, dykes of dolerite, basalt and granophyre; breccias, agglomerate and tuffs; dykes and plugs of alkaline rocks like nepheline syenite, phonolite ijolite and lamprophyre. The carbonate rocks around the centre of the Ambadungar structure consists of different rock such as coarse white calcite rocks, veins of aegirine augite-calcite, fine grained calcareous rocks with chert bands and fine grained

calcareous rocks which are ferruginous and manganiferous. The origin and history of the carbonate rock have become problems of debate among the geologists. The carbonate rocks, according to some geologists, are interpreted as carbonatites emplaced as cone sheets around a central type of volcanic eruption, while others think it to be the product of remobilised limestones.

In Karipani-Ambadungar area, the Cretaceous sediments are exposed by a domal uplift and accompanying faulting. The centre is a depression in which basalts have been exposed. The carbonate rocks, which form the main host rock for fluorite mineralisation and associated breccia around the centre of the dome at Ambadungar reach heights up to 625 meters R. L.

Numerous dykes of different composition and having trends mostly E-W to ENE-WSW occur in area between Panwad, 29 km., north of Ambadungar and Mehan Fort.

Recent and Sub-Recent

The Recent and sub-recent formations are represented by laterite, *Kankar*, soil, etc. Thin cappings of laterite, characterised by light red to dark brown colours and mottled vesicular structures, occur on Trap at higher elevation. Nodular, Concretionary lime, commonly known as '*Kankar*' is often met with in the soil covering the crystalline rocks in the areas adjoining the Trap. The western half of the district is covered by a thick pile of alluvium which is underlain by sediments of Tertiary age. The presence of petroliferous Tertiary sediments below the alluvium has been revealed by the oil wells drilled at several places in the district.

Seismicity

The Gujarat State can be divided broadly into four tectonic units—(i) The Saurashtra-Deccan Trap Plateau in the west, (ii) The Kachchh-Ahmadabad-Surat belt in the centre, (iii) The Banas Kantha-Sabar Kantha-Panch Mahals metamorphic igneous terrain in the north-east and east, and the Ambadungar-Rajpipla-Songadh Deccan Trap Plateau in the south-east, (iv) the zone of rift systems coinciding with the course of the Narmada and the Tapi rivers in the south-east.

Among these units, the Kachchh-Ahmadabad-Surat belt is sandwiched between the relatively stable areas of Saurashtra in west and metamorphic and igneous terrains of Banas Kantha-Sabar Kantha-Panch Mahals and part of Vadodara-Bharuch in south-east is tectonically unstable. This unit falls in the Khambhat-Graben areas which is thought to have been formed as

early as lower or upper Palaeozoic times alongwith the development of Sindh-Rajasthan geosyncline. During the period of Deccan Trap activity, there appears to have been considerable tension in this region resulting in the development of inter-cratonic graben between the Saurashtra Craton in the west and Aravalli hills in the east and Deccan Trap Massifs in the south-east. The site of this graben is a zone of deep seated crustal weakness. Two almost N-S aligned faults have been recognised on the eastern and western margins of the graben from Mahesana to Mahi river, which may continue southwards. The structurally complex graben containing several domes and basins have been divided with four structural blocks separated by major faults. The blocks are named (i) Ankleshwar-Kosamba, (ii) Jambusar-Bharuch, (iii) Khambhat-Tarapur and (iv) Ahmadabd-Mahesana blocks from south to north and are separated by faults roughly aligned with the courses of the rivers Narmada, Mahisagar and Sabarmati respectively.

The thick deposits of sub-Recent times present just east of the mouths of the rivers Mahi and Narmada, which are here almost of the sea level, confirm that the tectonic activity has continued in this belt at least till the sub-Recent times. Further the geomorphological evidence like the alluvial cliffs and the occurrences of moderate earth tremors indicate that the tectonic activity in this area continues. The zone of rift system coinciding with the W. and WSW. flowing Tapi and Narmada rivers also appears to be tectonically unstable. The ENE. extension of links of weakness of Narmada zone the stretch between Bharuch and Tilakwada run into the courses of the tributaries, viz., Orsang, Heran, Men, etc. Thus, there are two active tectonic systems in the region, the Kachchh-Mahesana-Surat graben with its folds and faults and the fault system coinciding with Narmada and Tapi rivers. As such these and neighbouring regions are potentially seismic.

EARTHQUAKES

The western and south-western parts of the Vadodara district form a part of Khambhat graben, falling in Jambusar-Bharuch structural block, while the Khambhat-Tarapur structural block lies to the north-western border of Vadodara district. The northern and the eastern parts of the district are relatively stable areas. The Khambhat basin and adjoining areas experienced number of earthquakes in last 285 years. However, in recent years, the Bharuch earthquake of 23rd March, 1970 deserves a special mention. This quake was felt in an area of 27,000 sq. km., from beyond Vadodara in the north to past Surat in the south and covering Bhavnagar and Ukai-Rajpipla areas in the west and east respectively. The earthquake was experienced by the city of Bharuch and the surrounding villages at about 7.25 a. m. on 23rd March, 1970. Two mild shocks followed immediately and two more occurred subsequently at 10.20 and 10.37 a. m. As a result 150-175 houses collapsed or became un-inhabitable and an additional 2,000-2,500

houses were partially damaged, twenty six persons died and 100 persons received minor injuries. Slight damage to Narmada Railway Bridge was observed but the traffic continued. Fissures developed in the ground at several places and waters and sand ejected from fissures on the southern bank of the Narmada river. Mild after shocks took place on 26th March at 9.25 p. m. and 26th April 1970 at 6.48 p. m. The effect of this earthquake was most experienced in the western, south-western and north-western parts of Vadodara district. The affected areas of the district fall in the Isoseist-IV. The Boundary between Isoseists III and IV passes between Vadodara and Samlaya and east of Navagam dam site in north-eastern and eastern sides respectively, while the boundary between Isoseists IV and V in the district passes between Padra and Jambusar and between Palej and Miyagam. The major part of the district experienced earthquake equivalent to Isoseist-IV where the quake was felt by most persons who were inside their houses and generally two shocks were felt. The building structures were observed to be vibrating. The sensation was that of a small electric drill being worked on the outside of the wall or that of the passing of a heavily loaded truck. Generally no appreciable effect on the materials of construction was noticed.

MINERALS

The first geological survey of the minerals of the State was made in the year 1891 by Mr. Bruce Foote of the Madras Geological Survey and his report was published in 1898. Another Survey was made in the year 1907-08 by Mr. Sambasiva Iyer of the Mysore Service, who analysed most of the deposits. In this report he suggested the various steps that should be taken with a view to determine the quality and the economic value of the deposits.¹

Useful Minerals and Rocks

Calcite

The occurrence of Calcite in the form of veins have been reported from Nani-Naroli. The other occurrence of calcite is located near Mithibor, Chhota Udepur and Padarvant.

Base Metals

Lead-zinc mineralisation extending over a strike length of 18,000 metres has been explored by drilling by the Geological Survey of India. The ore is associated with metasediments of pre-Cambrian age. Drilling carried out in the area in the past has not indicated any encouraging results.

1. Baroda State, Gazetteer of the Baroda State, (1946), p. 43.

Building and Construction Materials

Light grey to brownish impure dolomite found to the south-west of Jhair was utilized in the construction of palaces of the former Chhota Udepur State. The dolomite band extending over 8 km., NW-SE direction between Kanwat and Dhameri is being exploited for using in glass and fertilizer industries. Marbles occurring near Chhuchhapura is extensively quarried and used as a building stone. An another occurrence of serpentinous medium to coarse grained marbles has been reported near Devhati.

The Bagh limestones occurring near Bakhar, Dhaniali and Pherkuva are impure and siliceous and contain high percentage of magnesia. These limestones can be used for making lime.

Quartzites occurring near Bhilpur and Pipia can be used as building material. The quartzites exposed to the north and west of Pipia contain higher percentage of SiO₂ and very little iron, and yeild-good slab. Besides using this quartzite as building material, it can be used as an abrasive and acid filtering. Hard and compact quartzites which are being quarried near Rustampura is suitable as road metals.

The Bagh sandstone near Kodha is being quarried as building stone and road metals. The flaggy sandstone of Bagh beds at Chameta are being quarried as slabs for roofing and flooring purpose. Small pieces of the sandstone are being used as road metals. The hard and compact sandstone north-west of Adhuri is being quarried and used as railway ballast.

The granites occurring in the district can be used as building material, while the traps exposed in the district is suitable for making road metal and railway ballast.

Felspars—In the Vadodara district, felspar is found near Pandarvant, Piplej and Zer in Chhota Udepur taluka.

Fluorspars—One of the largest fluorspars deposit in the world has been discovered by the Geological Survey of India at Ambadungar in Chhota Udepur taluka. Fifty eight zones of fluorspar mineralisation covering an area of 5 sq. km., has been demarcated so far and a reserve of the order of 11.6 million tonnes of fluorspars with average 30 per cent CaF₂ has been estimated. The mineralisation has been brought out by the Deccan Trap Volcanic activity. The areas adjoining the Ambadungar appears to be promising for getting another lenses of fluorite. The deposit at Ambadungar is being exploited by the Gujarat Mineral Development Corporation.

Glass sand and Quartz. While sandstone (Songir sandstone) has been reported in Sankheda taluka. The sandstone contains silica percentage as high as 99.93 per cent. The Songir sandstone is being exploited for making grinding wheels stones, etc.

Graphite.—The graphite deposits of Vadodara district are located at Kundal, Muthai, Cheina and Luneja in Jabugam taluka. In Kundal area amorphous graphite is associated with impure crystalline limestone. The thickness of graphite zone varies from a few centimetres to 2 metres, and strikes over a length of 330 metres. The fixed carbon content of the graphite at Kundal is 15.92 per cent. In Muthai area, it is in the form of graphite schist of 4.5 metres width and 22 metres length. The fixed carbon content of the graphite is 18.72 per cent.

In Chhota Udepur taluka, graphite occurs at Khodvania, Jaloda, Virpur, Chichod, Khos, Khajuria, Kol and Umarva. There are some old workings at Kodvania-Virpur area.

Manganese.—Manganese ore bodies occur in association with the phyllites, quartzites, cherts and gneisses belonging to Champaner Series, at Pani, Ambala, Kadwal, Vadeth and Zari. Out of these, manganese ore was exploited at Pani Mines in the past. Manganese occurrences at other places are small and hence do not have an economic importance.

Ochres.—The micaceous haematite quartzite near Jhojwa Railway Station in Vadodara district is suitable for making colour pigments.

Oil.—Drilling carried out by the O. N. G. C. at several places in alluvium covered areas of Vadodara district, has indicated petroliferous strata of Tertiary age.

Groundwater Conditions

The groundwater survey and investigations have revealed that rocks of varying nature are found in this district, namely the older metamorphics, granite, granite gneisses, limestone and shales of lower cretaceous age, Deccan Traps and recent alluvial deposits consisting of sand clay, *Kankar* and pebbles and gravels.

The groundwater in rocky areas is mainly confined to cracks, fissures, joint planes and zones of weathering. The groundwater in hard rock formation occurs under unconfined condition and due to scanty open area available the recovery through wells and bores is poor. In such areas only open wells are suitable. Even the sandstones around Naswadi do not constitute good aquifers since they are hard, compact and silicious. The

water levels in rocky terrain varies between 6 to 15 metres below ground surface. The yield from open wells in such areas varies between 2,000 to 6,000 gallons per hour but wells can be pumped intermittently.

Groundwater in alluvial formation which mainly occurs in western parts occurs both under confined and unconfined conditions. The water levels in alluvial formation vary between 6 to 27 metres below ground level. The Government of Gujarat has so far drilled 70 tubewells in selected blocks of which 53 are successful and 17 have failed either due to poor discharge or occurrence of hard rock at shallow depth. The yield from normal tubewells varies between 15,000 to 40,000 gallons per hour at varying drawdowns between 9 and 15 metres.

The Hydrological tests conducted on tubewells have indicated that the coefficient of transmissibility of aquifers varies between 78,000 to 1,30,000 gallons per day per foot and the coefficient of permeability varies between 680 to 2,000 gallons per day per sq. ft. In general the alluvial aquifers are capable of transmitting large quantities of groundwater.

From the chemical analysis of water it is found that the quality of groundwater varies in the district, the total dissolved solids range from 250 to 3,000 ppm. By and large in rocky area the quality of groundwater is uniform. The total dissolved salts increase in alluvial areas as traced from east to west. The areas around Vadodara city, Bhayali and Varnama are worth mentioning where both deep and shallow aquifers are yielding saline water. This may be due to presence of inherent salts in the marine deposit which occur near Vadodara and which have not been subjected to leaching and flushing.

However, there is still further scope of groundwater development in selected areas of Vadodara district both by construction of tubewells in alluvial areas and open wells in hard rocks areas.

OIL FIND IN VADODARA DISTRICT

The Vadodara district is situated in the alluvial plains of Gujarat. Occurrence of natural gas was known in the time of former State of Vadodara. The Oil and Gas were reported to have been struck in the compound of bungalow of Kothivala at Vadodara city. It is also stated that at Vadsar oil occurred at a depth of about 200 metres only and at Padmavati Sanatorium in Vadodara it was found at about 300 metres only.¹ From the view point of geological formation it is said that the Central Gujarat alluvial plain has a great thickness of sedimentary rock deposits which contain oil and gas. The formation of rocks started 80 million years back

1. PAVIKH RAMLAL (EDITOR), *Souvenir*, 66th Session, Indian National Congress, Bhavnagar, (1961), Part III, p. 19.

and their growth is continuing particularly in the Gulf of Cambay (Khambhat)¹. Very few subsurface structures were delineated in this district by seismic surveys conducted by the Oil and Natural Gas Commission. With the discovery of oil in the district, an industrial base has firmly been laid by Oil and Natural Gas Commission. The Refinery in the district is a pivot which will blaze the trail of industrial activity of a magnitude and dimension hitherto unknown to the people of the district.² Two structures viz. Dabka and Padra have been explored by drilling for prospecting on oil/gas.³ Out of them only one structure (Dabka) is proved to be oil and gas bearing. 16 wells have been drilled so far in this district. Out of them only one well is oil bearing, 3 wells are gas bearing, 11 wells are dry and 1 well is under testing.

Dabka Field

Dabka field is situated at about 24 km., north-east of Jambusar. The first well, Dabka-1 was drilled in the year 1970, on a small fault closure. Eocene sands which occur at a depth of between 1,490 and 1,500 metres, produced gas in commercial quantities. This sand may be correlatable to EP-IV zone of Khambhat-Kathana area. Dabka gas field seems to be defined by stratigraphic boundaries in the north and south; while the regional north-south fault forms its eastern limit.

Another well, Dabka-4 situated 4 km. west of Dabka well No. 5, was drilled on another small closure. Eocene sand, equivalent to gas bearing sand of Dabka well No. 1 was encountered here at a depth interval of 1,580-1,600 metres and produced oil in commercial quantities.

So far 8 wells have been drilled, out of which one well is oil bearing. 3 wells are gas bearing, one well is yet to be fully tested and the rest are dry.

Padra Area

Four structural wells near Padra (west of Vadodara) were drilled to depths ranging from 423 metres to 1,153 metres. Objects in the intervals of 644-649 metres in well No. 1, 606-612 metres. in well No. 2 and 571-576 metres in well No. 3 and 658-668 metres in well No. 4 have been tested. All the objects tested gave indications of non-commercial oil and gas, with saline water.

1. Directorate of Industries, Government of Gujarat, *Industrial Bulletin* Vol. XII, No. 2, April 1973. An Article entitled 'Development of Oil and Natural Gas in the Western India,' p. 19.
2. Director of Information, Government of Gujarat, *Gujarat-Ten Eventful Years* (1970), p. 102.
3. Deputy Director, Directorate of Geology, Oil and Natural Gas Commission, Tol Bhavan, Dehra Dun.

Flora

FORESTS

Past History

In the former Vadodara State institution of a regular Forest Department started from 1877. Prior to that there were jungle-clad areas in Jarod, Sankneda and Tilakwada *mahals*, in charge of the Revenue Department. The teak bearing areas were later on transferred to the management of the Forest Department. A total area of 50,988 *bighas* or 34,667 acres was thus constituted as reserved forest in Savli, Vaghodia and Sankheda talukas after due demarcation work was jointly done by the Revenue and Forest Departments. At that time the jungle-clad area were worked on the 'ijara' or contract system. This led to very heavy and irregular fellings of trees, as the 'Ijardar' or farmer selected for removal the best of the trees which suited his requirements or purposes. Subsequently, from 1877 to 1884, the Forest Department was put in charge of Sub-Assistant Conservator of Forest whose services were borrowed from the Forest Department of the Bombay State. Then followed a period of six years upto 1890, when the Department was under the management of the Naeb Subas of the Revenue Department. During this period, in place of the *ijara* system, exploitation of the forest area was permitted to contractors through the permit system by which they could remove whatever kind and size of trees they liked on payment of a fixed fee per *khandy*. The depletion and serious damage to forests was thus aggravated, protection against thefts and mischiefs was nominal, and forest-conservancy was an unknown factor. In 1894, Mr. E. E. Fernandez of the Indian Forest Service, was entrusted with the administration of the forests, when some important improvements, especially as regards the constitution and settlement of forest areas, and the preparation and publication of a Forest Act and a set of rules were effected. On the reversion of this officer to British Service, the management of the Forests as conservator devolved on Mr. G. K. Mediwalla, who had been trained at State expense in Forestry at Cooper's Hill College in England. On the premature death of this gentleman in 1909, there was again an interregnum during which the Subas took over the Department until the arrival of conservator in 1913. It was only in 1930-31 that regular working plans were formulated for forest management. Lastly, the Baroda State framed comprehensive policy in 1940 which was continued till the State was merged in 1949. Thereafter the National Forest Policy framed in 1952 has been applied to these forests in the district.

The district is badly deficient in forests. The area of forest in the district was found to be 766.54 sq. km. in 1970-71. The major portion of the area of the district is plain. The Government of India have laid down

that forests should form 33 per cent of the total area. In the 1952 conference it was specifically agreed upon that in respect of hilly area forests should form 60 per cent and in case of plains the percentage should be 20. However, the total forest area of the district is about 9.4 per cent of the total area as against 8.87 per cent area of the State. The statement given below indicates forests areas in Vadodara district from 1961-62 to 1970-71. The available timber and wood are processed by saw mills in the district and used for furniture making and construction works mostly by the district population. However, the supply is not adequate to meet the local demand. The other forest products are consumed by the district itself.

STATEMENT 1-2

Forest areas in Vadodara district, 1961-62 to 1970-71

(AREA IN SQ. KM.)					
Year 1	Reserved Forests 2	Protected Forests 3	Unclassed Forests 4	Private Forests 5	Total 6
1961-62	61.59	—	457.88	256.59	776.06
1962-63	61.61	—	489.41	256.59	807.61
1963-64	372.17	—	181.04	256.59	809.80
1964-65	377.35	—	214.82	256.59	848.56
1965-66	526.31	—	88.16	256.59	871.06
1966-67	525.54	—	121.11	256.59	903.24
1967-68	525.54	—	121.11	256.59	903.24
1968-69	530.68	—	212.27	201.70	944.65
1969-70	540.31	—	144.61	201.70	886.62
1970-71	536.97	—	27.87	201.70	766.54

Source :

Census 1971, Series 5, Gujarat, *District Census Handbook, Vadodara District*, Part X-C1, Ahmadabad, (1973), p. 19.

Forests are on the eastern border of the district covering Chhota Udepur, Naswadi and Pavi Jetpur talukas. Timber and firewood are the major forest produce. The other minor forest produce are Timru leaves, gum, Rosha grass, Mahuda flowers and fruits, lac and Ashotri leaves. These are collected by Adivasi labourers. The forests in the district fall under the Chhota Udepur division of the Vadodara Circle for administrative purposes. These

forests consist of "Dry Mixed Deciduous Type". The forest produce reported for the district during 1972-73 is given below :

Sl. No. 1	Item 2	Value in Rs. 3
1	Timber, Firewood and Charcoal	11,43,312
2	Minor forest produce such as Timru leaves, gum, Mahuda flowers and fruits, Rosha grass, lac, etc.	11,99,699
3	Grass and Grazing	21,473
4	Minerals	2,24,594

Following types of trees are found in the forests of Vadodara District :

<i>Sag</i>	<i>Tectona grandis</i>
<i>Sadad</i>	<i>Terminalia tomentosa</i>
<i>Haladwan</i>	<i>Adina cordifolia</i>
<i>Kalamb</i>	<i>Milragyna parvifolia</i>
<i>Sisam</i>	<i>Dalbergia latifolia</i>
<i>Khair</i>	<i>Acacia catechu</i>
<i>Beo</i>	<i>Pterocarpus marsupium</i>
<i>Rayan</i>	<i>Manilkana lexandra</i>
<i>Limbda</i>	<i>Melia azadirchta</i>
<i>Timru</i>	<i>Diospyros tupru</i>
<i>Baheda</i>	<i>Terminalia belerica</i>
<i>Umbh</i>	<i>Sacconetaluma tomentosum</i>
<i>Bondara</i>	<i>Lagerstroemia parviflora</i>
<i>Babul</i>	<i>Acacia arabica</i>
<i>Kakad</i>	<i>Garuga pinnata</i>
<i>Indrajav</i>	<i>Wrightia tinctoria</i>
<i>Ghatbor</i>	<i>Zizyphus xylopyra</i>
<i>Khakharo</i>	<i>Butea frondosa</i>
<i>Patrali</i>	<i>Dalbergia paniculata</i>
<i>Amli</i>	<i>Tamarindus indicus</i>
<i>Garmala</i>	<i>Cassia fistula</i>
<i>Tad</i>	<i>Phoenix sylvestris</i>
<i>Karanj</i>	<i>Pongamia pinnata</i>
<i>Al</i>	<i>Cassia auriculata</i>
<i>Umro</i>	<i>Ficus glomerata</i>
<i>Vad</i>	<i>Ficus bengalensis</i>
<i>Pipal</i>	<i>Ficus religiosa</i>
<i>Bordi</i>	<i>Zizyphus jujuba</i>
<i>Charoli</i>	<i>Buchanania lanzan</i>

Forest Privileges in the Vadodara District

For merged areas of Chhota Udepur, Sankheda Mewas and Gadhboriad States, the following privileges are allowed :

(a) *Firewood*—Fallen and dead material of non-reserved species is permitted to be removed without pass and permission on head-loads. The States where classification of forest has not been done, removal of wood on head-loads on permits should be allowed.

(b) *Material for Agricultural Purposes*

(i) For making carts or for agricultural purposes or for house buildings reserved species are given at concessional rates.

(ii) Non-reserved species are given free from open or reserved forests on taking pass.

(iii) Dead reserved species at $\frac{1}{4}$ of the scheduled rates are given.

(c) *Bamboos*—For house building and for agricultural purposes in States like Chhota Udepur at the maximum of 150 bamboos on head-loads is allowed, but in general, a concessional rate is fixed for sale of bamboos even to local public.

(d) *Leaves of Tad and Palm*—Removal by head-loads permitted on recovery of royalty, while in Chhota Udepur it is free. Pass is necessary only for more quantity.

(e) *Grass and Grazing*—Except camel, other animals are allowed to graze free in general, except in some States free grazing in reserved area is allowed five years after cutting, but by obtaining pass grazing in such reserved area is also allowed. In States like Chhota Udepur, an area of 15 acres per 100 cattle in each village is set aside for grazing purposes and such areas are not given for cultivation. No grazing is allowed in grass birs to be sold.

(f) *Land (trees)*—In some States like Chhota Udepur those who want to remove reserved species from cultivated lands, should do so on payment of rupees one per tree, subject to the rights and interests of others in the trees.

(g) *Use of Fruit Trees*—All yield, except timber and fuel from non-reserved trees, are permitted to be enjoyed by the State people. They can also without damaging reserved trees, extract fruits, flowers and leaves and can sell such produce to contractors or can export after paying export fees.

1. Government of Gujarat, *Forest Privileges in the Gujarat State, Baroda*, (1961), pp. 8 and 9.

Medicinal Plants Found at Chhota Udepur Taluka¹

Ghelvant in Chhota Udepur taluka, situated on the bank of river Orsang has a Forestry School. The hills and mountains of Chhota Udepur are famous for medicinal herbs. The area is, therefore, ideal for starting Ayurveda Vidyalaya in the Opinion of Committee for Gardens for Medicinal Plants. The Committee recommended that a Primary Nursery should be started in this area near Chhota Udepur on the bank of Orsang river. A “ तण्डुल ” tree used in “अत्रादिगण” was found on the Ambadungar hills. This tree had three leaved branches. This tree resembled “सल्य” similar to that of *Pinus longifolia*. These trees are found here in abundance. Gum oozes out of them which is just like *Pinus longifolia* and it is widely used as incense.

Trees of *Anogeissus latifolia* “काकड मोदर” *Dalbergia latifolia* “शिरिष” and “मरहशिगी” are found. “देवकपास” was also found in abundance. These hills of Chhota Udepur are covered with small plants and various trees. The hill of Ambadungar is almost thick with medicinal plants. A little farther from this place flourite mineral is found. Many plants of small bamboos are found. The crop of what is known as *Santhichokha* in Ayurveda, is found here. Two types of *Alysicarpus longifolius* are available at this place. The grass of “रोजीसा” is also located here, and its oil is used to cure Rheumatism.

The hill of Ambadungar and surrounding hills are full of trees, small plants and innumerable creepers. In this forest, the *Embilica* and *Terminalia* trees are found. The Committee recommended that 15 to 20 acres of land may be acquired on the bank of river Orsang at Chhota Udepur and one medical store may be established.

Fauna

WILD ANIMALS

The exact status of most of the mammals of the Vadodara district needs to be carefully worked out since during the last century, with the great increase in human activity and an increase in population, there has been considerable changes in habitats and most of the larger mammals which were fairly common and familiar can safely be considered to have lost ground almost to the extent of total extinction and many of the smaller mammals being largely nocturnal are possibly more common than may be thought of on account of their not coming in contact with humans. In the ‘Gazetteer of Baroda State’ reference is made to a few animals of the district viz., pigs, wild monkeys, porcupine; etc. It is also stated that, “His Highness Khanderao, who was

1. Report of the Committee for Gardens of Medicinal Plants appointed by Government of Gujarat, Ahmadabad, (1969), pp. 52 to 55.

very fond of sports, carefully cherished two boar preserves, one near the Jambuva river some six miles (9.65km.) from the capital, another at Dabka on the bank of the Mahi, 18 miles (28.96km.) from Vadodara. The latter place still affords recreation to the sportsman; the former is no longer of any account. In the open country between Makarpura and Itola from six to eight miles (9.65 to 12.87km.) distant from Vadodara, there are villages or near which pigs are to be found, which are neither wild nor tame. The truth is that at one time the city of Vadodara was infested by great herds of pigs who were its sole scavengers, and His Highness Khanderao Maharaja, when he rid "the place of them, did not condemn the animals to death but to this exile". The wild animals are now described below :

Order I Insectivora

FAMILIES 1, 2 AND 3 TUPAIDAE THE TREE SHREWS, ERINACEIDAE THE HEDGEHOGS AND SORACIDAE THE MUSK SHREWS.

These are all small animals with long snouts and prehensile toes. They mainly subsist on insects and are totally nocturnal. The Indian Tree Shrew *Anathana ellioti* (ગુણીયા છાંદેર) is an animal of trees and it is most likely to occur in the eastern parts of the district, though its exact status needs to be confirmed. The Pale Hedgehog *Paraechinus micropus* (પીળો શેળો) is a familiar little animal of cultivation where it runs about among hedgerows and comes to notice as it crosses roads. Its body is covered with short spines and when in danger it curls up into a tight ball with all the spines bristling to effectively protect it from normal predators. The Grey Musk Shrew *Suncus murinus* (ગુમરી છાંદેર) is the most familiar member of this Order as it freely enters houses and is well established even in densely populated areas of cities, emerging at night to run about houses, keeping to the walls as it runs rapidly from one room to another, squealing and squeaking all the while. It is often mistaken for a mouse and killed but can be recognised by its rather thick and naked tail and long pointed snout and almost invisible eyes.

Order II Chiroptera

FAMILIES 1 AND 2 PTEROPIDAE THE FLYING FOXES OR FRUIT BATS AND VESPERTILIONIDAE THE BATS

This Order contains all the true flying mammals. The fruit bats are large and roost in large numbers in boughs of spreading trees and fly out at dusk in all directions in search of fig and fruit laden trees. In our area we have the familiar Flying Fox *Pteropus giganteus* (શીંગડા અથવા બુટ્ટા વડવાળો) which at times is quite a problem for orchardists. The smaller bats of the

1. Baroda State, Gazetteer of the Baroda State, (1946), pp. 57-58.

second Family are familiar as a group, though only a few experts can identify the various species. They spend the daylight hours in dark places, clefts in tree trunks, cracks in walls, inside ceilings and among rafters of buildings coming out at dusk to flit about hunting for night flying insects which they locate by their unique power of detecting echoes of bodies of prey in response to their producing high frequency sounds as they fly. This singular sensitiveness also assists them in flying around unerringly in the dark.

Order III Primates

FAMILY 1. CERCOPITHIDAE THE MONKEYS

In our area there is only one representative of this family, the common Langur *Presbytis entellus* (લંગૂર અથવા હનુમાન વાંદરો), also commonly called the Hanuman monkey. It is an animal of forest and fields where there are large trees in groves or in avenues. Here small parties will be seen quietly feeding on the ground or in the branches of the trees, eating leaves, shoots grain and fruits. Langurs freely enter city gardens and wherever they are not molested as in temple precincts, they become very confiding and come and take food from the proffering hand. The truly wild langurs are inhabitants of tall trees and their loud hooting calls are a typical forest sound.

Order IV Polidota

FAMILY 1. MANIDAE THE SCALY ANT-EATERS

The Pangolin *Manis crassicaudata* (સાલવો) is the only species of this interesting and curious animal which has been seen by very few people since it is very nocturnal and spends the day in deep burrows. Possibly it is very local and not at all common. Its elongated body and tail are covered by broad scale-like plates which effectively provide protection to the animal which curls up into a tight ball in the presence of danger.

Order V Lagomorpha

FAMILY 1. LAPORIDAE THE HARES AND RABBITS

The familiar domestic rabbit is a member of this Family while the Desert Hare *Lepus dayanus* (રબ્બટ અથવા સસડેજ) is the wild representative. Hares are found in fields in broken country overgrown with grass and scrub as well as in deciduous forests. The numbers are now greatly reduced on account of widespread trapping for food. Hares like rabbits can run at great speed by virtue of the elongated hind legs which permit them to take great leaps and to twist and turn with bewildering rapidity.

(Bk) H-112—6 (Lino)

Order VI Rodenta**FAMILIES 1, 2 AND 3 SCIURIDAE THE SQUIRRELS, MURIDAE THE MICE AND RATS AND HYSTRICIDAE THE PORCUPINES**

The Five Striped Squirrel *Funambulus pennanti* (પાંચડો બિચરો) is a very familiar diurnal animal which freely lives close to man, even entering houses in search for food. It constructs a large, untidy globular nest of grass, paper and rags and places it conspicuously up in a tree, or stuffs it into a hole in some tree trunk or masonry or even among rafters inside houses. The last Family is represented by a single species, the Indian Porcupine *Hystrix indica* (સુરો) a large animal with long hair and still longer quills. The Family Muridae contains the various types of mice found both in the countryside, in fields and forest and in houses in crowded cities. These mice belong to the genus *Musa*, the attractive Longtailed Tree Mouse *Vandeleura olivacea* (સોંબો પૂંછડીવાળો વૃક્ષશૃંગ) is an animal of wet grass and vegetation and has the upper parts a rich chestnut-red and the lower parts white. Then there are the larger, and very unpleasant congeners of Man; the rats of the genus *Rattus* and the similar though larger bandicoots of the genus *Bandicota* both at home in densely populated urban areas, inhabiting the sewers and causing considerable damage to stored grains and other foods. In the countryside one may come across very attractive little mice-like gerbilles of the genus *Tatera*, particularly in more sandy areas.

Order VII Carnivora**FAMILY 1. FELIDAE THE CATS**

The domestic cat is a familiar and useful representative of this Family, useful because of the check it keeps on the rodent population. In the countryside we have the similar, though slightly larger and more leggy Jungle Cat *Felis chaus* (સોંબો બિચરો અથવા જંગલો બિચરો). This fine cat rarely enters cities and is less associated with human habitation though being fairly common in fields. Among the big cats, the Leopard *Panthera pardus* (લેપર્ડ અથવા પેરો) is now far less plentiful over the entire district than a decade ago and possibly is now extinct over much of its former habitat, though it is likely that it is still holding its own in the more wooded eastern parts of the district and might from time to time venture into the overgrown ravines along the larger rivers. The Tiger *P. tigris* (ટાઇગર) is most assuredly no longer found any where in the area. It may be noted here that this large and beautiful cat is the National Animal and therefore is completely protected at all times.

FAMILY 2. HYAENIDAE THE HYAENAS

The Striped Hyena *Hyaena hyaena* (સ્ટ્રીપ્ડ હાયેના) is a large dog-like animal with a curious shuffling gait on account of its shorter hind limbs.

It is mainly a scavenger and feeds on carrion. The hyaena, though lacking strong, biting teeth and slashing claws, has very powerful jaws with which it can crush the largest bones. Though a scavenger, at times it will kill weak and wounded animals if opportunity comes.

FAMILY 3. VIVERIDAE THE CIVETS AND THE MUNGOOSE

These are animals which superficially resemble cats and have very elongated bodies and tails with proportionately short legs and sharp muzzles. They are essentially predators and kill rodents, reptiles, small birds and larger insects as well as frogs. Civets spend considerable time among trees and often enter houses after rats. The Small Indian Civet *Viverricula indica* (સૂંઝો વંદીયર) is the most common generally distributed of the civets while the more shaggy and fox-like Common Palm-Civet *Paradoxurus hermaphroditus* (પાંડુ વંદીયર) is a denizen of forested localities. The Common Mongoose *Herpestes edwardsi* (સામાન્ય બૂખરો નોંભીયો) is a common resident of fields and large gardens. It is a reputed snake-killer and destroys a large number of rats, etc.

FAMILY 4. CANIDAE THE DOGS AND THEIR ALLIES

The Wolf *Canis lupus* (વગર અથવા વાઈ) is possibly no longer found any where in the district, but the smaller Jackal *Canis aureus* (ચાપલ) is still very plentiful and it occurs in fields and forest country and freely scavenges on the outskirts of villages and towns and its long drawn out wailing cries are heard everywhere at dusk. The Indian Fox *Vulpes bengalensis* (વેંકડો) is still smaller than the jackal and has a long, bushy tail which is its distinctive feature. The fox is a nocturnal predator and lies up during daylight hours in its burrow.

FAMILY 5. MUSTELIDAE THE OTTERS AND THE BADGERS

The Smooth Indian Otter *Lutrogale perspicillata* (સુવ બિચરો) is an engaging, mongoose-like animal found along rivers where it swims and dives to capture fish on which it mainly subsists. The Ratel *Melivora capensis* (ધોર ખોદિયું) a species of badger, is a rather uncouth animal with a squat build, powerful for its size with short, strong limbs armed with long claws. It digs deep burrows in which it lies up during the day and is essentially a nocturnal prowler preferring more broken country. It is well known for its ability to dig into graves to get at the corpses. The Ratel also feeds on fruits, berries and has a taste for honey with which it varies its diet of small animals and birds as well as carrion, frogs and reptiles.

Order VIII Artiodactyla**FAMILY 1. SUIDAE THE PIGS**

The Indian Wild Boar *Sus Scrofa* (જંગલો ડુકર અથવા વન્ય ભૂડ) once very plentiful over the entire area is now very localised and possibly almost exterminated from the former habitats. As such it was treated as a

vermin and even today there is no effective legislation to protect it and so it is likely to be entirely lost to our mammalian fauna. It is an animal which, however, breeds rapidly and in broken country where a few individuals may still be holding out, sizeable herds may again be built up with protection.

FAMILY 2. CERVIDAE THE DEER

Deer are distinguished by their antlers which are grown each year by the stags and after the rutting period, shed them. The Sambar *Cervus unicolor* (સામ્બર) is a very large deer and may still be found in small numbers in the more forested, broken country to the east of the district, though the exact status is something which needs to be confirmed. Deer spend most of their time browsing the forest shrubs.

FAMILY 3. AND 4. CAMELIDAE THE CAMELS AND LIAMAS, AND BOVIDAE CATTLE, ANTELOPES AND GAZELLES

The Dromedary Camel is a totally domesticated animal used as a beast of burden. It is an animal essentially of desert tracts, but has been introduced since long into our area. The Buffaloes and cattle belong to the second Family and they are both important as beasts of burden and as milch animals. This Family and the Cervidae have been grouped into the sub-order Ruminanta having a many chambered stomach and the characteristic of ruminating or "chewing the cud" as seen among domestic cattle. The wild members of the Bovidae are the elegant, deer-like Chinkara *Gazella gazella* (ચિંકારા) an animal of open grasslands and saline flats. It is now largely exterminated from our area by so called sportsmen. Both the sexes have horns which do not fall off every year as in the deer. The graceful Blackbuck *Antelope cervicapra* (કાળિયાર અથવા કાપરા) which formerly was an essential element of the Indian scene is now a memory of past over most of the district, though a large herd may be seen in the Sundarpura Sanctuary a short distance from Vadodara city. The Nilgai *Boselophus tragocamelus* (નિલગાય અથવા રેત) is a large cow-like antelope in which both the sexes have short horns, though the adult develops a deep blue-black coat and is a magnificent sight.

Birds

INTRODUCTION

The Vadodara district is well placed so as to have a representative avian and mammalian fauna. The rainfall though generally heavier than areas to the north increases from west to east so that the eastern parts are well wooded and there are still stands of fairly good forests on the hills. Most of the areas are intensively cultivated, but there are plenty of large trees around the fields, and groves around villages and religious shrines. Near the estuary of the Mahi, however, where the soil is more saline and the rainfall less, the

vegetation is less luxuriant. Thus in so small an area we can look forward to a very varied fauna and particularly in birdlife, the range of species and plentitude of birds are remarkable.

The mammalian life, however, is less rich and this is particularly so of the larger mammals both herbivorous and carnivorous. The exact status of many of these needs to be surveyed and at best can only be guessed at.

A brief general survey of all the families of birds is given below. Species most likely to occur from each Family have been mentioned. Most of the Gujarat birds can be expected to be found in the district except for those belonging to desert, or evergreen forests. Quite understandably marine species do not occur though the mudflats at the estuary of the Mahi river near Dabka would certainly attract quite a few of the waders which do not normally affect inland habitats.

The Gujarat list has about 450 species of birds divided into 63 Families grouped into 18 Orders. From among these, 17 Orders are represented on the Vadodara list and a careful enumeration by interested ornithologists would assuredly raise the tally of species almost to the State level.

Order I Podicipediformes

FAMILY 1. PODICIPEDIDAE THE GREBES (ડૂબકી)

These are small to medium-sized water birds very much like small tailless duck. They are entirely aquatic and inhabit marshy and reedy verges of larger reservoirs. The Little Grebe *Podiceps ruficollis* (નાની ડૂબકી) is a common resident and during the rains it is found on the smallest roadside ditches where it freely breeds building floating nests of water weeds. Grebes find it difficult to take off water and patter a considerable distance over its surface, but when once airborne they can fly fast and far as is proved by the migrant Great Crested Grebe *P. cristatus* (મોટી ડૂબકી) and the Blacknecked Grebe *P. caspius* (શિયાળુ ડૂબકી) both of which are uncommon though fairly regular winter visitors. Grebes dive well and procure much of their food from below the surface.

Order II Pelecaniformes

FAMILY 1. PELECANIDAE THE PELICANS (પેલુ)

We have two species of pelicans mainly as non-breeding visitors and they are most plentiful after the monsoon rains and through the winter months. They are large birds and are at once recognised by their swanlike forms with grotesque, large, pouched bills and fully webbed feet. Normally they are gregarious and often assemble in very large flocks, particularly where fish

food is plentiful, or when they assemble to spend the night beside open water. The best place to see pelicans in the district would be the Ajva reservoir. The Rosy Pelican *Pelicanus onocrotalus* (રુડાંબી પેલ) shows a rosy-pink tinge on the white plumage which the Grey Pelican *P. philippensis* (ગ્રે પેલ) does not.

FAMILY 2. PHALACROCORACIIDE THE CORMORANTS AND SNAKE BIRDS (કાંઠાના તથા સર્પગ્રીવ)

These are all fish eating birds. The breeding season coincides with the rains. Apart from the distinct Snake Bird *Anhinga rufa* (સર્પગ્રીવ) we have the Cormorant *Phalacrocorax carbo* (મોટું કાંઠાંબી). Another bird is the Shag *P. fuscicollis* (કાંઠાંબી).

Order III Ciconiiformes

FAMILY 1. ARDEIDAE THE HERONS, EGRETS AND BITTERNS (બગલા વ.)

These are long legged and long necked wading birds found on the edges of streams, rivers, pools, road-side ditches, reservoirs, and esturian mud as well as among marshy vegetation where they wade out stalking fish, frogs, and large aquatic insect larvae. Following are the birds, observed in the district : (1) the Grey Heron *Ardea cinerea* (ગ્રે હેર), (2) the slightly smaller Purple Heron *A. purpurea* (પર્પલ હેર), (3) the Large Egret *Egretta alba*, (મોટું ધોળું બગલું), (4) the Smaller Egret *E. intermedia* (ધોળું બગલું), (5) the Egret *E. garzetta* (નાનો ધોળું બગલું) and (6) the Indian Reef Heron *E. gularis* (રિફ હેર બગલું), (7) the Cattle Egret *Bubulcus ibis*, (કેર બગલું) three types of Herons viz, (8) the Pond Heron *Ardeola grayii* (કાંઠાંબી બગલું), (9) the Little Green Heron *Butorides striatus* (લીલી બગલું) and (10) the Night Heron *Nycticorax nycticorax* (રાત્રી બગલું).

FAMILY 2. CICONIDAE THE STORKS (ઢેંક)

Storks are large editions of the herons. They have prominent bills and they have to take a few steps into the wind to become airborne, fly powerfully and are great soarers. The varieties of storks seen in the district are the resident Painted Stork *Ibis leucocephalus* (ઢેંક), the slightly smaller Openbilled Stork *Anastomus oscitans* (ફાટી ચાંચ ઢેંક), the Whitenecked Stork *Ciconia episcopus* (ધોળી ડેકવાળો ઢેંક), the White Stork *Ciconia ciconia* (ઉજળો ઢેંક), and the tall and statuesque Blacknecked Stork *Xenorhynchus asiaticus* (બનારસ ઢેંક).

FAMILY 3. THRESKIORNITHIDAE IBISES AND SPOONBILLS (કાંકણસાર અને ચમચો)

The White Ibis *Threskiornis melanocephala* (ધોળી કાંકણસાર) is quite unmistakable as it probes with its black downcurved bill on the edges of water, the black contrasting with the pure white body. The Black Ibis *Pseudibis*

papillosa (કાંકણસાર) is another very familiar bird which is found among cultivation as well as near water. The similar, though slightly smaller Glossy Ibis *Plegadis falcinellus* (ચક્રાકિત કાંકણસાર) is a regular, though not very common winter visitor. The Spoonbill *Platalea leucordia* (ચમચો) is easily distinguished as a white water side bird with a singular spoonshaped bill.

FAMILY 4. PHOENICOPTERIDAE THE FLAMINGOS (સુરખાબ)

These are white birds with long slender pink legs and long, gracefully curved, swanlike necks. In flight the neck is stretched out in front and the legstrial behind. Flamingos feed on organic matter in coze at the bottom of lakes and tidal pools for which they wade out and reach down with their long necks, feeding with their heads submerged. Their unique beaks filtering the mud for its deitic contents. The Flamingo *Phoenicopetrus roseus* (સુરખાબ અથવા હેંજ) is a fairly regular, non-breeding visitor to the larger reservoirs while the smaller and more pink Lesser Flamingo *Phoeniconaias minor* (નાનો સુરખાબ અથવા નાનો હેંજ) is less common and is a winter visitor.

Order IV Anseriformes

FAMILY 1 ANATIDAE THE GESE AND DUCKS (બતક, વિ.)

Geese and ducks with swans form the common known water fowl. They are aquatic birds which have short sturdy legs with webbed feet with which they can swim well and walk with a sedate side to side gait on land. The ducks and geese found in the district are the Pintail *Anas acuta* (સીંગવર-બતક), the Common Teal *Anas crecca* (મુરઘાબી/નાની મુરઘાબી) the Shovellor *Anas cylopeata* (ગણણો/પગતીચાંચ બતક) the Common Pochard *Anas ferrina* (વાલશિર કારચિયો), the White-eyed Pochard *Aythya nyroca* (ધોળી આંખ કારચિયો), The Ruddy Sheld Duck *Tadorna ferruginea*, (ચક્રવાક) the Spotbill Duck *Anas poecilorhynchus* (ટીણિયાની બતક) the large black and white Nukta or Comb Duck *Sarkidornis melanots*, (નકટા), the Cotton Teal *Nettapus coromandelianus* (ગિરની-બતક), and the slow flying Lesser Whistling Teal *Dendrocygna javanica*. (નાની સિસોટી-બતક).

Order V Falconiformes

FAMILY 1. ACCIPITRIDAE THE HAWKS, EAGLES AND VULTURES

This is a family of birds varying in sizes from large to medium with hooked bills and sharp, curved talons. They feed entirely on flesh of other vertebrates the vultures are all large with broad wings and graceful, soaring flight.

The varieties of vultures found in the district are the White backed Vulture *Gyps bengalensis* (ગીધ), the Indian Long billed Vulture *Gyps indicus* (ગીરનારી ગીધ), the Neophron or White Vulture *Neophron percnopterus*, (સફેદ ગીધ) the Giffon Vulture *Gyps fulvus* (પહાડી ગીધ), Himalayan Griffon *Gyps himalayensis* (શાહી ગીધ) and the Cinereous Vulture *Aegypius monachus* (કાંચીધ).

The eagles seen in Vadodara district are the Tawny Eagle *Aquila rapax* (ગુમ્મટ) the Pale-headed Pallas's Fishing Eagle *Haliaeetus leucorhynchus* (મચ્છીમાર ગરુડ), the Bonelli's Hawk Eagle *Misaetus fasciatus* (સાંભળગર), the Short toed Eagle *Circus gallicus* (સાંભળગર ગરુડ), the Booted Hawk-Eagle *Hieraeetus pennatus* (શિયાળી સાંભળગર), the Crested Hawk Eagle *Spizaetus cirrhatus* (મોરબાજ), the Honey Buzzard *Pernis ptilorhynchus* (મધિયો બાજ), the White-eyed Buzzard Eagle *Buteo teesa* (ટીસો).

The varieties of kites observed in the district are the Pariah Kite *Milvus migrans* (સમળી ધીલ), the Brahminy Kite *Haliastur indus*, (ગાંધારી સમળી), the Shikra *Accipiter badius* (અક્રી), the Marsh Harrier *Circus aeruginosus* (પાન પટ્ટાઈ), the Osprey *Pandion haliaetus* (મચ્છીમાર) and the Black-winged Kite *Elanus caeruleus* (કપાસી).

FAMILY 2. FALCONIDAE THE FALCONS (ભેરી)

Falcons are medium-sized birds of prey which feed entirely on living prey which they hunt down with great ferocity and speed. The resident falcon of our area is the Lanner Falcon or the Lagger Falcon *Falco biarmicus* (લગ્ગરભેરી) found in pairs through out the area. The other falcons seen in the district are as follows :

The Peregrine Falcon *F. peregrinus* (ભેરી), the elegant and silvery-grey the Red-headed Merlin *F. chicquera* (ગુમ્મટી), the Kestrel *F. tinnunculus* (કરજી) and the Hobby *F. subbuteo* (ધીલી).

Order VI Galliformes

FAMILY 1. PHASIANIDAE THE FOWLS, QUAILS AND PARTRIDGES (તેતર, મોર, વા.)

The Peafowl, *Pavo cristatus* (મોર) the 'national bird' of India is common and semi-domesticated and needs no introduction. It is effectively protected by sentiment. The Grey Partridge *Francolinus pondicerianus* (તેતર) is found in small family parties among cultivation scuttling about along the hedgerows or feeding out among stubble. Its loud calls are a familiar sound. The painted Partridge *F. pictus* (દલિયોતેતર) is an inhabitant of tall grass and is heard mainly in the breeding season during the south-west monsoon. The Black breasted or Rain Quail *Conturnix coromandelica* (વાઈ લાવરી) is an attractive bird seldom seen though very common while the slightly larger common Quail *C. coturnix* (બટ્ટેર) is a winter visitor and bird of grass and cultivation. Broken country is inhabited by flocks of small Rock Bush Quail *Perdula argoondah* (લાવરી/બટ્ટેર) and the very similar Jungle Bush Quail *P. asiatica* (વનલાવરી, વન બટ્ટેર). All members of this family are edible and many of them are regularly netted and as such their number are far less than otherwise warranted.

CHAPTER I—GENERAL

Order VII Gruiformes

FAMILY 1. TURNICIDAE THE BUSTARD QUAILS (બિલ-બટ્ટેર)

Three species of these diminutive quail-like birds found with us are (i) Little Bustard-Quail *Turnix sylvatica* (નાની બિલ-બટ્ટેર), (ii) Button Quail *T. lanki* (ભારતીય-બિલ-બટ્ટેર) and (iii) Common Bustard Quail *T. suscitator* (બિલ-બટ્ટેર). They are seldom seen as they are great skulkers and inhabit grass and crops. They all belong to the genus *Turnix* and are characterised by the fact that the females are larger, more brightly coloured and aggressively court the males which are left to care for the work of incubation and the newly hatched chicks. The hens utter a loud drumming calls far louder than the size of the bird warrants.

FAMILY 2. GRUIDAE THE CRANES (સારસ)

These are tall birds with long necks and legs. All cranes have loud trumpeting calls. The large Saras Crane *Grus antigone* (સારસ) stands six feet tall and is found in pairs in cultivation where sentiment has preserved it from destruction.

FAMILY 3. RALLIADAE THE RAILS, ETC (સંતાકૂકડી)

These are small to medium large birds inhabiting reed-beds and marshy vegetation. They are difficult to see and particularly the smaller species are largely overlooked. The commonest is the resident White breasted Waterhen *Amaurornis phoenicurus* (સંતાકૂકડી) which has other closely related species also within our area. The Moorhen *Gallinula chloropus* (જલ મુરખો) is mainly a winter visitor and the large, clumsy but brightly coloured Purple Moorhen *Porphyrio porphyrio* (નીલ મુરખો) is a resident with considerable seasonal movements. The Kora or Watercock *Gallicre cineria* (જલ મુરખો) is another large bird seldom seen because of its skulking habits. The all black Coot *Fulica atra* (ભગતડું) frequents open water, often quite deep, into which it dives to reach submerged plants on which it feeds.

FAMILY 4. OTIDIDAE THE BUSTARDS (ધોરાડ)

Bustards (ધોરાડ) are large cursorial birds found in open cultivation and grasslands. Their numbers are now less, greatly depleted on account of their being remorselessly hunted for food. Possibly the only regular species found in our area is the Likh or Lesser Florican *Syphaelides indica* (ખડ્ગોર) a rainy season, breeding visitor to grass expanses and standing crops. During winter the Houbara *Chlamydotis undulata* (ટિહુર) might drop in as a vagrant particularly on the saltflats along the Mahi estuary. Bustards feed largely on grasshoppers, reptiles and shoots.

Order VIII Charadriiformes

FAMILY 1. JACANIDAE JACANAS (જાકાનિડાઈ)

The Jacanas are represented by a single species which is common and resident. The Pheasant-tailed Jacana *Hydrophasianus chirurgus* (જાકાનિડાઈ) which inhabits weed-choked pools and walks freely on floating lily-pads by virtue of its very elongated toes. The distinctive feature of the nuptial plumage is the long, sickle-shaped, chocolate brown tail. The Bronze-winged Jacana *Metopidius indicus* (કાળો જાકાનિડાઈ) has similar habits, but is more a resident of very extensive marshes and is not a common bird in our area.

FAMILY 2. CHARADRIIDAE

Sub-family I Charadriinae the Lapwings etc. (રિડોડી) common and resident Redwattled Lapwing *Vanellus indicus* (રિડોડી) with well-known 'Did-you-do-it' call is a typical representative of this group of birds. The similar sized species of the genus *Vallneus* all have distinctive wing and tail patterns showing up in flight. The Yellow-wattled Lapwing *V. malabaricus* (વાલ્લેનિડોડી) is a fairly common resident inhabiting dry, fallow cultivation, the White tailed Lapwing *V. leucurus* (સફેદ પૂંછ રિડોડી) is a winter visitor to marshes and the Sociable Lapwing *V. gregarius* (સામાજિક રિડોડી) is an uncommon winter-visitor to open pasture land. The two species of *Pluvialis* are smaller and both winter visitors when their plumage is not very distinctive. The other types of Lapwings and Plovers observed in the district are : the Grey Plover *P. squatarola* (બાટણ-રિડોડી), the Eastern Golden Plover *P. dominica* (સોનેરી બાટણ-રિડોડી) and the Little Ringed Plover *Charadrius dubius* (કાંઠાવાળી ઢોંગીલી).

Sub-family II—Scolopacinae the Sandpipers and their allies (ડ્રાઇવર્સ ટી). All the species of this sub-family are winter visitors. The large throngs of birds found running about on mudflats both estuarine as well as fresh are these birds. The largest are of the genus *Numenius* with long downcurved bills and streaked brown plumage, the slightly smaller and very gregarious Blacktailed Godwit *Limosa limosa* (કાળી પૂંછ ગરેડો) is with a long straight bill. Various species of shanks and sandpipers of the genus *Tringa* and the sparrow-sized stints and their allies of the genus *Calidris* are also seen in this district. The Ruff and Reeve *Philomachus pugnax* (રિલીયો) is a plumpish wader found often in large flocks both close to as well far from water.

FAMILIES 3, 4, 5 AND 6 THE ROSTRATULIDAE THE PAINTED SNIPE, THE RECURVIROSTRIDAE THE STILT AND AVOCETS, THE BURHINIDAE THE STONE CURLEW AND THE GLAREOLIDAE THE COURSERS AND PRATINCOLES.

The Painted Snipe *Rostratula benghalensis* (પાન લીલા) is a bird of wet marshes with plenty of cover. In habit this species is sluggish and nocturnal.

recalling the snipe. The females are larger and brightly coloured and they actively fight for territories and seek out the males who incubate the eggs and care for the chicks. Painted Snipe feed on worms and other mud loving invertebrates. The Blackwinged Stilt *Himantopus himantopus* (ગજપાઉં) is a very common and resident bird. The other birds of this family observed in this district are as follows : the black and white Avocet *Recurvirostra avosetta*, (ઉલટી ચાંચ), the Stone Curlew *Burhinus oedinemus* (ચકલો), the Great Stone Curlew *Esacus magnirostris* (મોટો ચકલો), the Indian Courser *Cursorius coromandelicus* (રણ ગોધલો), the paler Cream-coloured Courser *C. cursor* (શિયાળુ રણગોધલો), the Collared Pratincole *Glareola pratincola* (તેજપર) and the pale coloured Small Indian Pratincole *G. lactea* (નાનો તેજપર).

FAMILY 7. LARIDAE THE GULLS AND TERNs. (ધોમડા અને વા બગલી)

Gulls are all winter visitors and they are found in flocks of varying sizes flying over water or settling on it. All our gulls belong to the genus *Larus* and the commonest are the very similar Brownheaded Gull *Larus brunnicephalus* (ધોમડો) and the Balckheaded Gull *L. ridibundus* (કાળા માથાનો ધોમડો).

The other types of Gulls and Terns seen in this district are as follows: the Great Blackbacked Gull *L. ichthyaetus* (મોટો ધોમડો), the Indian River Tern *Sterna aurantia* (કેચી વા બગલી), the Smaller Black-bellied Tern *S. acuticauda* (કાળી પેટાળી વા બગલી), the very small Little Tern *S. albbifrons* (નાની વા બગલી), the Whiskered Tern *Chlidonias hybrida* (વા બગલી), the White winged Black Tern *C. leucoptera* (સફેદ પાંખવાળી કાળી વા બગલી) the Gull-billed Tern *Gelochelidon nilotica* (ધોળી વા બગલી), the Caspian Tern *Hydroprogne caspica* (મોટી વા બગલી), and the Skimmer *Rynchops albicollis* (જળદેવ).

All the members of this family lay their eggs on the ground often collecting in large flocks to breed. They select river shoals and shingle beds close to water or surrounded by it for greater isolation.

Order IX Columbiformes

FAMILY 1. PTEROCLIDIDAE THE SANDGROUSE (બડાવડા)

Sandgrouse are pigeon-like birds found feeding in open pastureland and fallow fields. In our area the commonest are the Indian Sandgrouse *Pterocles exustus* (બડાવડા) and the more highly coloured Painted Sandgrouse *P. indicus* (રંગીન બડાવડો). The latter is a species of broken ravines and scrub and deciduous forests.

FAMILY 2. COLUMBIDAE THE PIGEON AND DOVE (કબુતર અને હોલો)

The Blue Rock Pigeon *Columba livea* (કબુતર/પારેવજ) is a common and familiar bird around human habitation, nesting on rafters, holes in walls, cornices of large building and old forts, and down shafts of wells. The Green Pigeon *Treron phoenicoptera* (હરિયાલ) is a beautiful green bird found in small flocks among large trees where it feeds on fruits and figs and is purely arboreal. These doves are found in the district :

The Indian Ring Dove *Streptopelia decaocto* (લોલો), the Little Brown Dove *S. Benegalensis* (લોલો), the Spotted Dove *S. chinensis* (નલિયો લોલો), the Red Turtle Dove *S. tranquebarica* (લોલો લોલો), and the Rufous Turtle Dove *S. orientalis* (શિયાળુ લોલો).

Order X Psittaciformes

FAMILY 1. PSITTACIDAE THE PARAKEETS (પેપર)

The Roseringed Parakeet *Psittacula krameri* (પેપર/રૂંડો) is familiar bird of the countryside and a favourite cage bird. The male has a rose colour round the neck and both sexes have bright green plumage, bright red, hooked bill and a long blue-green tail. These parakeets remain in flocks and are found everywhere, freely entering gardens and entering houses. The other two types of parakeets observed in the district are (i) the Large Indian Parakeet *P. eupatria* (સાબીપાનનો પેપર) and (ii) the Blossom-headed Parakeet *P. cyanocephala* (ફૂલ).

Order XI Cuculiformes

FAMILY 1. CUCULIDAE THE CUCKOOS (કુલુ)

The Koel *Eudynamys scolopacea*, with the black male and the mottled female, is a very well known bird. It is a popular bird eulogised by Indian poets. The Common Hawk Cuckoo *Cuculus varius* (નલિયો) is another bird whose sound is familiar particularly during the hot season and during the onset of the rains in July. The other types of cuckoos observed in the district are the Pied Crested Cuckoo *Clamator jacobinus* (ચાતક/ચોતીડો), the Crow-Pheasant or Coucal *Centropus sinensis* (ચોતીડો) and the Sirkeer Cuckoo *Taccocua leschenaultii* (સિરકીડો).

Order XII Strigiformes

FAMILY 1. STRIGIDAE THE OWLS (ધુવડ)

Owls are night flying birds resembling the hawks with grasping talons and hooked beaks. They are highly nocturnal birds. The Barn Owl *Tyto alba* (રેલી-દેલી) a whitish owl found around human habitation and heard hissing and screaming wierdly at night is invaluable as a destroyer of rodents. The other owls seen in the Vadodara district are as under :

- (i) The Spotted Owlet *Athene brama* (ચીબરી),
- (ii) The Great Horned Owl *Bubo bubo* (ધુવડ),
- (iii) The Brown Fish Owl *B. zeylonensis* (મસ્ય ધુવડ), and
- (iv) The Short-eared Owl *Asio flammeus* (રવઈડો ધુવડ).

Order XIII Caprimulgiformes

FAMILY 1. CAPRIMULGIDAE THE NIGHTJARS (દશરથિયુ)

These are birds of the night found sitting on the ground and hawking insects on long silent wings. Their calls are distinctive and best means of identifying the various species. The Common Indian Nightjar *Caprimulgus asiaticus* (દશરથિયુ) is the commonest species and is distributed in all types of country and is common in cultivation. The Franklin's Nightjar *C. affinis* (સાબુક-દશરથિયુ) is a bird of scrub and deciduous forests, while the Indian Jungle Nightjar *C. indicus* (જંગલ દશરથિયુ) may be fairly common in forested parts of the district to the east. The European Nightjar *C. europaeus* (શિયાળુ દશરથિયુ) is an uncommon passage migrant in autumn.

Order XIV Apodiformes

FAMILY 1. APODIDAE THE SWIFTS (અબાબીલ)

Flocks of small black birds flying around continuously large old building uttering twittering calls would be the House Swift *Apus affinis* (અબાબીલ). Similar flocks of brown birds with more forked tails around Palmrya Palms in the countryside and large city gardens would be the Palm Swift *Cypsiurus parvus* (નલ અબાબીલ) a bird singular in its nesting habits in that it attaches a pad of a nest on the palm fronds and is consequently found only where these trees grow. The large Alpine Swift *Apus melba* (ધોળા પેટવાળો અબાબીલ) with white under parts a bird of the winter months and is seen only briefly as a flock passes over on one of its foraging flights. In the east, there are all likelihoods of the Crested Swift *Hemiprocne longipennis* (વન અબાબીલ) occurring in well wooded country and specially flying over large trees besides water. Swifts feed on minute winged insects and never come to the ground.

Order XV Coraciiformes

FAMILY 1. ALCEDINIDAE THE KINGFISHERS (કલકલિયો)

Kingfishers are stout birds with short legs and tails and long bills for capturing fish, their main food. They are all brightly coloured with shades of blue predominating except for the Lesser Pied Kingfisher *Ceryle rudis* (કાબરો કલકલિયો) a white bird. The varieties of Kingfishers noticed in the district are (i) the White-breasted Kingfisher *Halcyon smyrnensis* (કલકલિયો) (ii) the Stork-billed Kingfisher *Pelargopsis capensis* (ઢોંક ચાંચ કલકલિયો) and (iii) the Common Kingfisher *Alcedo atthis* (નાનો કલકલિયો).

FAMILY 2. MEROPIDAE THE BEE-EATERS (પતરંગા)

Bee-eaters are elegant green birds with long, slightly down-curved bills and with long pins extending from the central tail feathers. The Green Bee-

eater *Merops orientalis* (નાના પતરંગી) is the smallest and the most familiar resident Bee-eater of the area. There are two varieties of Bee-eaters observed in the district, viz., (i) Blue-cheeked Bee-eater *M. superciliosus* (મોટા પતરંગી) and (ii) the Blue-tailed Bee-eater *M. philippinus*. (નિલા પૂંછ પતરંગી)

FAMILY 3. CORACIDAE THE ROLLERS (ચાસ)

There are two species of rollers in our area, the resident Indian Roller *Coracias benghalensis* (ચાસ) and the passage migrant in autumn the European Roller *C. garrulus* (કાશ્મીરી ચાસ). Both the birds perch on vantage points from where they keep a look out for insects and fly down to pick them up from the ground. The Indian Roller nests in cavities of tree trunks during the hot season.

FAMILY 4 AND 5. UPUPIDAE THE HOPOE (ધેણી ટીકણી) AND BUCEROTIDAE THE HORNBILLS (ચિલોતરો)

The Hoopoe *Upupa epops* (ધેણી ટીકણી) is an attractive fawn coloured bird with black and white zebra-markings on the wings and tail, a long slender bill and a pointed crest gives its head the appearance of a pick-axe. It is a resident species breeding during the hot season placing its nest in holes and cavities. In winter the numbers are greatly augmented by migrants from the north. The Common Grey Hornbill *Tokus birostris* (ચિલોતરો) is the only representative of this singular family in our area. It is a bird of large trees and purely arboreal.

Order XVI Piciformes

FAMILY 1. CAPITONIDAE THE BARBETS (કંસારો)

In our area there are two species of barbets, the sparrow-sized Crimson-breasted Barbet *Megalaima haemacephala* (કંસારો) a stocky little bird with a short tail, thick bill, green above and with bright red and yellow on the head and face. Its call is one of the commonest, repetitive sounds of the country side, a metallic *tonk-tonk-tonk-tonk* uttered for much of the day particularly during the hot season. The Green Barbet *M. zeylanica* (લીલો કંસારો) is a larger bird drab green in colour.

FAMILY 2. PICIDAE THE WOODPACKERS (લક્કડ ખોદ)

The two commonest woodpeckers of the area are the Yellow fronted Pied Woodpecker *Bendrocopos mahrattensis* (કાબરો લક્કડખોદ) which is generally distributed in all types of country from thorny forest to better wooded terrain and even inhabits scrub and hedges and the larger Goldenbacked Woodpecker *Dinopium benghalense* (સોનેરી લક્કડ ખોદ) an attractive bird with golden wings

The male has a crimson red crest. In winter a small relative of the wood-peckers with brown and grey plumage with fine vermiculations is fairly common particularly in more open cultivation and scrub areas. This is the Wryneck *Jynx torquilla* (ડોકામરડી/ચડરંગ)

Order XVII Passeriformes

This is a very large Order and it contains a great number of Families of song birds. Most of our common garden birds belong to one or the other of the many Families of this order. On the whole, Passers are not very large, the largest being the crows. They all are characterised by having a special sound organ at the base of the trache called the syrinx and many of them have very beautiful voice.

FAMILY 1. PITTIDAE THE PITTAS (નવરંગ)

The Indian Pitta *Pitta brachyura* (નવરંગ) is the only species of this tropical Family of interesting and colourful birds. Pittas are dumpy, short tailed birds which spend most of their time on the ground in shady places. The Indian Pitta is green on the back and wings, bright blue on the rump, white patches on the flight feathers seen to advantage, when the bird flicks open its wings, or takes to flight, dark and pale brown stripes on the head, fulvus lower parts with crimson below the tail. In our area the Pitta is a bird seen most commonly as a passage migrant just before the onset of the south west monsoon rains when it may be found even in city gardens.

FAMILY 2. ALAUDIADAE THE LARKS (ચંડૂલ)

Larks are sparrow-like birds found in pairs or small parties in open country. They are all ground nesters and build small, neat cups of fibres rootlets, and such-like material beside a tussock of grass or a stone. Several of them are good singers and justly famed for their sustained singing and mimicry. The Crested Lark *Galerida cristata* (મોટોચંડૂલ), and the Syke's Crested Lark *G. deva* are both birds with prominent crests and are partial of fields, pastureland and rivers and reservoirs. The other varieties of Larks found in Vadodara district are as follows :

The Malabar Crested Lark *G. malabarica* (મલબારી ચંડૂલ), the Eastern Skylark *Aluda gulgula* (ભરત), the Ashycrowned Finch-Lark *Eremopterix grisea* (ભીંચ ચકલી), the Rufous-tailed Finch Lark *Ammomanes phoenicurus* (ખેતરિયો), the Eastern Calandra Lark *Malanocorypha bimaculata* (મોટો શિયાળુ રેતાલ ચંડૂલ/મોટી સઈડ), the Short-toed Lark *Calandrella cinerea* (શિયાળુ રેતાલ ચંડૂલ/સઈડ), the Sand Lark *C. raytal* (રેતાલ ચંડૂલ), the Red-winged Bush Lark *Mirafra erythripta* (આગિયો અગન), and the Singing Bush Lark *M. javanica* (અગન).

DISTRICT GAZETTEER : VADODARA

FAMILY 3. HIRUNDINIDAE THE MARTINS AND SWALLOWS (અબાલી અને તારોડિયું)

These birds can be easily mistaken with the swifts like whom they fly around incessantly capturing winged insects. The difference is in that where as the former generally fly close over the surface of the ground and around buildings, the latter fly higher, often at considerable distance above the ground. The varieties of martins available in the district are as follows :

- (i) The Collared Sand Martin *Riparia riparia* (શિયાળું રેતાલ અબાલી),
- (ii) the Plain Sand Martin *R. paludicola* (રેતાલ અબાલી),
- (iii) the Dusky Crag Martin *Hirundo concolor* (અબાલી), and
- (iv) the Crag Martin *H. rupestris* (મોટી અબાલી),

The types of swallows seen in the district are :

- (i) the Wire-tailed Swallow *Hirundo smithii* (તારોડિયું),
- (ii) the Indian Cliff Swallow *H. fluvicola* (નાનું તારોડિયું), and
- (iii) the Swallow *H. rustica* (શિયાળું તારોડિયું).

FAMILY 4. LANIIDAE THE SHRIKES (લટોરા).

The most widely distributed shrike in our area is the Rufous-backed Shrike *Lanius schach* (મટિયો લટોરા) which is readily distinguished by rufous on the back and the flanks, and is a bird of tall grass and scrub-jungle. The other shrikes found in the district are: Grey Shrike *L. excubitor* (દૂધિયોલટોરા), the Bay-backed Shrike *L. vittatus* (પરનક લટોરા), the Red-backed Shrike *L. collurio* (લાલ પીઠવાળો લટોરા) and the Brown Shrike *L. cristatus* (બદામી લટોરા).

FAMILY 5. ORIOLIDAE THE ORIOLES (પીલક)

Both the species of Orioles of our area are attractive birds with fluety calls. The Golden Oriole *Oriolus oriolus* (પીલક) which is more widely distributed and fairly common among large trees has the male, bright golden yellow with black wings, and tail, a flesh coloured bill and a black line extending from the bill through the eye to the earcovert. There is much yellow in both the wings and tail. The female is greenish yellow above and white with streaks below. The Blackheaded Oriole has both the sexes similar. It is a bird of better wooded areas and is likely to be a resident in the eastern parts of the district. Both the species nest during the hot season and construct a very delicately woven cup-shaped nest suspended between a horizontal fork fairly high up in a tree.

FAMILY 6. DICURURIDAE THE DRONGOS (કોશી)

The Black Drongo *Dicrurus adsimilis* is a very common and familiar bird throughout the district and is one of the most plentiful birds of the country side. Its sleek black body and long, gracefully forked tail immediately draw attention. This drongo breeds in the hot season building a cup shaped nest of rootlets in a small tree. In the eastern areas and through the district during the winter, the White-bellied Drongo *D. leucophaeus* (ધોળા પેટવાળો કોશી) draws attention to itself by its fine calls and the white belly and an all black body are ready identifiers. This is a bird of the tree tops and is partial to very large trees. During winter the Grey Drongo *D. caerulescens* (ભૂખરો કોશી) is a fairly common visitor. It is easily overlooked superficially resembling the first species, but a second glance shows its grey lower plumage and its more slender structure. Its call notes are also less strident and once noted are easily recognised. It comes to us from the Himalayan forests. The Hair-crested Drongo *D. hottentotus* (ચકચકિત કોશી) is a very uncommon winter migrant.

FAMILY 7. STURNIDAE THE MYNAS ETC. (કાબર વિ.)

The Common Myna *Acridotheres tristis* (કાબર) and the Bank Myna *A. ginginianus* (ધોડા કાબર) are two common and very familiar birds both living in close association with man. They both nest in holes in trees and walls as well as under caves. The attractive Brahminy Myna *Sturnus Parodarum parodarum* (બ્રહ્મર્ષ) has a black crest. It is particularly partial to acacia groves where there are plenty of cavities to nest in. The very similar Greyheaded Myna *S. malabarica* (રાખોડી શિર બ્રહ્મર્ષ) is more a bird of large trees and better wooded terrain and is locally resident. The Jungle Myna *A. fuscus* (વન કાબર) superficially resembles the Common Myna, but is recognised by the absense of the yellow skin round the eyes and by a tuft over the bill. It is likely to be a resident species in the better wooded areas to the east of the district. During winter very large flocks of Rosy Pastors *S. roseus* (રોસો) arrive to spend the cool months throughout the area where they may be met with feeding among stubble, gleanng grasshoppers in grasslands, or jostling among figladen avenue trees.

FAMILY 8. CORVIDAE THE CROWS (કાગડો)

The House Crow *Corvus splendens* with a grey neck and the all black Jungle Crow *C. macrorhynchos* (ગિરનારી કાગડો) are both plentiful and familiar birds. The attractive relative of the crows the Indian Tree Pie *Dendrocitta vagabunda* (ખેર ખટ્ટો) is common among large trees in cultivation, orchards, and gardens and is recognised by its long grey tail and dark brown head and fulvous body.

FAMILY 9. CAMPEPHAGIDAE THE CUCKOO-SHRIKES AND MINIVETS (રૂંધે અને રાજવાડ)

These are small to medium small birds of trees where they lead an entirely arboreal life. The cuckoo shrikes are grey while the minivets have varying degrees of red in their plumage of the males and yellow of the females. The latter are found in small parties.

The varieties of shrikes found in the district are :

- (i) The Common Wood Shrike *Tephrodorins pondicerianus* (રૂંધે)
- (ii) the Black-headed Cuckoo-Shrike, *Coccyzina melanoptera* (રૂંધે) and
- (iii) the Large Cuckoo-Shrike *C. novae-hollandiae* (મોટું રૂંધે)

Two varieties of minivets observed in the district are :

- (i) The Small Minivet *Pericrocotus cinnamomeus* (રાજવાડ) and
- (ii) The Scarlet Minivet *P. flammeus* (રાજવાડ)

FAMILY 10. IRENIDAE THE LORAS AND LEAF BIRDS (શોલોગી અને લેફા)

These are sparrow-sized birds with predominantly green or yellow colours and very sweet calls. The Common Lora *Aegithina tiphia* (શોલોગી) is a plumpish bird. It goes about in pairs actively hunting for insects among leaves and flowers. During summer the male develops a golden yellow colour with black on the head and back. Loras are birds of large trees and groves among fields. The Goldenmantled Leaf Bird *Chloropsis cochinchinensis* (લેફા) is a hot uncommon bird of large trees and is particularly partial to those in flower where it feeds on nectar by means of its long curved bill. Its green plumage makes it a difficult bird to see, but during the hot season its loud clear song is one of the most beautiful bird-calls in the area and on account of which, this species is highly prized as a cage-bird.

FAMILY 11. PYCNONOTIDAE THE BULBULS (બુલબુલ)

The Redvented Bulbul *Pycnonotus cafer* (બુલબુલ) is a common and well-known garden bird, which is found throughout the area in all types of country. The Whitechecked Bulbul *P. leucogenys* (સફેદ ગાલવાળું બુલબુલ) has a black head with prominent white cheek patches, and a sulphur-yellow patch under the tail. The Redwhiskered Bulbul *P. jocosus* (રાખાળું બુલબુલ) has a very prominent crest, a red patch under the tail and on either sides of the throat. The crestless Whitebrowed Bulbul *P. luteolus* (સફેદ નાભી બુલબુલ) is a fine songster and is found in larger gardens of Vadodara city itself and is also a resident among tangled scrub growth of the deep gullies bordering the larger rivers.

FAMILY 12. MUSCICAPIDAE THE BABBLERS (લેલ), FLYCATCHERS (મખીમાર), WARBLERS (યુરફી), THRUSHES (રૂંધડ) AND THEIR ALLIES.

This is a very large family and contains a diverse variety of species grouped into four Sub-families, namely the Timaliinae the Babblers which are small to medium sized birds found in small parties hunting for food on the ground among fallen leaves and among the branches of dense shrubs, while the smaller members also inhabit the foliage of large trees : the Muscicapinae the Flycatchers, small, wide-awake birds with erect stances as they perch on branches from where they keep a sharp look out for insects after which they swiftly sally forth to catch them in flight and at times descend to the ground to pick up some prey to return again to the lookout perch; the Sylviinae, the Warblers, a group of small, brown or greenish birds flitting about restlessly in shrubberies, crowns of trees or among thick reeds and grass and lastly the Turdinae the Thrushes and their allies the Robins and Chats, all birds which feed mainly on the ground either in open country or in shady localities hopping about singly. Among the babblers is the Jungle Babbler *Turdoides striatus* (વનલેલ) and in more drier localities, particularly with acacia thickets is the Large Grey Babbler *T. malcolmi* (લેલ). Also common in grass, and thorn shrubberies is the smaller Common Babbler *T. caudatus*. Among tall grass and dense shrubs it is likely to find small rufous birds in twittering flocks which would most certainly be the Rufous-bellied Babbler *Dumetia hyperythra* (રૂંધડી લેલ) the smallest of the babblers, and in similar habitat lives the larger Yellow-eyed Babbler *Chrysomma sinensis* (પીળી આંખવાળું લેલ) a bird with rich brown upper parts, pure white low parts and a conspicuous orange-yellow eye-ring. The most spectacular is the Paradise Flycatcher *Terpsiphone paradisi* (રૂંધડી) a resident in small numbers and breeding in large, shady orchards and groves, but more widespread in winter. The Tickell's Blue Flycatcher *Muscicapa tickelliae* (અધરંગ) is another lovely resident. The White-browed Fantail Flycatcher *Rhipidura aureola* (નાચણ પંખી) and the White spotted Fantail Flycatcher *R. albogularis* (સફેદ ટપકાવાળી નાચણ) are two very similar birds, smoke-brown above with varying amounts of white below, the former being easily identified by its prominent white eyebrow. Apart from these resident flycatchers we receive other during the winter of which the Red breasted Flycatcher *Muscicapa parva* (ચરકી મખીમાર) is the commonest, and the Brown Flycatcher *M. latirostris* (બદામી મખીમાર) the most uncommon. The active and attractive Grey headed Flycatcher *Culicicapa ceylonensis* (ઘરવરિયો મખીમાર) with green back and bright yellow lower parts is a regular visitor to large groves and less common, though not uncommon are the beautiful Verditer Flycatcher *M. thalassina* (ઘરિતજાલ મખીમાર) and the Blacknaped Flycatcher *Monarcha azurea* (નીલ પંખી) both birds with lovely shades of blue, the former coming from the Himalayan mountains while the latter is likely to be a resident in the better wooded and more broken areas to the east.

It may be stated here that the resident warblers all belong to the long tailed species of the genus *Prinia* of which the commonest are, even in city

gardens and hence more likely to be noticed, the ashy Long-tailed Warbler *P. socialis* (ફેડા ફેડા) and among standing crops the Plain Long-tailed Warbler *P. subflava* (પાન ફેડા ફેડા). The Tailor Bird *Orthotomus sutorius* (દરજી) is a small bird with bright green upper parts, white below and carries its tail over its back in a jaunty fashion. It is a very common bird of shrubberies both in gardens and the countryside and is justifiably famed for its dexterously constructed nest of stitched leaves. During winter a confusing array of brown or greenish warblers arrive and are found flitting actively about everywhere which belong to the genera *Acrocephalus* *Hippolais*, *Sylvia* and *Phylloscopus* amongst others, while the diminutive streaked Fantailed Warbler *Cisticola juncidis* (નની પાન ટેકડેદા) is a resident among reeds and grass.

The most familiar members of the fourth Subfamily are the Dhayal Thrush *Copsychus saularis* (દેવડ), and the Indian Robin *Saxicoloides fulicata* (ફાલીદેવ), both birds living in close association with man, the former in orchards and gardens and the latter in more open areas among fields and on the outskirts of villages. The Dhayal is a fine songster during the hot season. During winter, several species of chats of the genus *Oenanthe* arrive and are found in rather open country where they actively hop about or perch on clods of earth looking out for insect prey. The most conspicuous of these birds is the Pied Wheatear *O. picata* (ફાબરો ચટ્ટાર) the larger and darker coloured Blue Rock Thrush *Monticola solitaria* (નીલ કસ્તુરી) is found on large buildings and rocks among ravines. The Blue-headed Rock Thrush *M. cinclorhynchus* (નીલશિર કસ્તુરી) is an uncommon winter visitor from the Himalayas, while more widespread and very partial to shady spots is the Blackbird *Turdus merula* (કસ્તુરી), a quiet bird. It is necessary to mention the Bluethroat *Erithacus svecicus* (નીલકંઠ) a small bird common in winter among wet crops and vegetation where it hops about on the ground with its tail cocked. Also commonly seen perched on stalks or other exposed perches are the Pied Bush Chat *Saxicola caprata* (ફાબરો પટ્ટે) and the Collared Bush Chat *S. torquata* (મંડિયા પટ્ટે) while a common visitor to gardens is the Black Redstart *Phoenicurus ochruros* (ચરચર) in which both the sex have a chestnut tail, more bright in the male, which is shivering as the little bird hops about, or perches on a wall or alights on a window-sill. This charming creature is a visitor from the trans-Himalayan plateaux.

FAMILY 13. PARIDAE THE TITS (રામચકલી) AND 14 SITTIDAE THE NUTHATCHES (સિરિ) AND CREEPERS (ચડચડ)

In our area there is only one species of tit uniformly distributed among large groves, the Grey Tit *Parus major* (રામચકલી), a cheerful little bird, grey above white below with a black head with prominent white patches on the sides. It actively hunts for insects among the foliage and spring of flowers often hanging upside down in its effort to get at lurking prey. The Black-spotted Yellow Tit *P. xanthogenys* (ચોટીલી રામ ચકલી) with much yellow in its

plumage and sporting a prominent, erect crest is a bird more likely to be found among the broken, wooded areas to the east. The second Family is represented by the Spotted Grey Creeper *Salpornis spilonotus* (ચડચડ) with a local distribution, particularly among drier, deciduous forest. All the three species are hole-nesters, the former two often making use of holes in walls of houses.

FAMILY 15. MOTACILLIDAE THE PIPITS AND THE WAGTAILS

(ધાનચીડી અને દિવાળીધોડા)

The wagtails are very familiar since they are found in open fields and irrigated crops running about actively snapping up insects. They are all elegant birds with slender bodies and quick motions, the tail being actively wagged up and down in a characteristic manner. The White Wagtail *Motacilla alba* (દિવાળી ધોડો) is a grey, black and white bird, while the several races of the Yellow Wagtail *M. flava* (પીળકિયો) and the distinct Yellow-headed Wagtail *M. citreola* (પીળા માથાવાળો પીળકિયો) have bright yellow and greenish-grey plumage. The Grey Wagtail *M. caspica* (ચત પીળકિયો) is grey above with a wash of sulphur-yellow below the tail and is a bird of shady spots. The Large Pied Wagtail *M. maderas-patensis* (ધોબીડો) is a black and white bird found in pairs throughout the year beside running water, reservoirs and temple tanks. The Pipits belong to the genus *Anthus* and resemble the wagtails in general habits, but are brown above with varying degrees of streakings on the upper parts and on the breast. Except for the Paddy field Pipit *A. novaeseelandiae* (વીડ ધાનચીડી) they all are winter visitors.

FAMILY 16. DICAEDIDAE THE FLOWERPECKERS (ફૂલ સુંઘણી)

FAMILY 17. NECTARINIDAE THE SUNBIRDS (શકર ખોરો), AND

FAMILY 18. ZOSTEROPIDAE THE WHITE-EYES (બબુના)

Flowerpeckers are very minute and nondescript birds. The two species found in our area are both very much alike and are more often than not overlooked on account of their very diminutive sizes and squeaking, high-pitched calls as they flit around, often around bunches of flowers in large trees which they are partial to. These are the Thickbilled Flowerpeckers *Dicaeum agile* (ફૂલ સુંઘણી) and the Tickell's Flowerpeckers *D. erythrorhynchos* (પીળીચાંચ ફૂલ સુંઘણી). Like the sunbirds, flowerpeckers construct pendant nests with entrances to the side and smear the structure on the outside with cobwebs and bark. The Purple Sunbird *Nectarinia asiatica* (શકર ખોરો) is the common sunbird of the area and is found in all types of country provided there are flowering bushes and trees. The very colourful Purple-rumped Sunbird *N. zeylonica* (પચરંગી શકર ખોરો) in which both the sexes are brightly coloured with bright yellow on the lower parts is a rare bird of gardens and its exact status is not quite clear. There is only one species of White-eyes *Zosterops palpebrosa* (બબુના/સ્વેતનયના), in our area. White-eyes suspend small cup of delicately woven fibres between the prongs of a slender forked branch often within easy reach from the ground.

FAMILY 19. PLOCEIDAE THE SPARROW AND THEIR ALLIES (પેડાં) (૧૯)

These are all birds with thick conical bills used with advantage for crushing seeds and the common representative is the House Sparrow *Passer domesticus* (પેડાં). The very similar Yellow-throated Sparrow *Petronia xanthocollis* (પેડાં પેડાં) is a bird of trees in all types of forests and fields, but not entering houses as the former species does and is recognised by its plain upper parts and chestnut patches on the shoulders of the wings; the males during breeding develop a distinct yellow patch on the throat. The weavers are very like female House-Sparrows for much of the year, but develop bright yellow in varying degrees on the head in the males during the rains when they construct their intricately woven nests suspended from ends of palm fronds and branches of trees overhanging wells and pools of water. It is the males which construct the nests while incubation and rearing of the chicks is the sole responsibility of the hens. Weavers are polygamous, mating with as many hens as the number of nests as can be built. The Baya *Ploceus philippinus* (પેડાં) is the commonest and most widely distributed of the weavers. The other two weavers with a very local distribution, particularly being partial to tall grass and reeds are the Blackthroated Weaver *P. benghalensis* (પેડાં પેડાં) and the very uncommon Streaked Weaver *P. manyar* (પેડાં પેડાં). The Munias are rather small birds with very conical bills which move about in flocks and feed on grass seeds. The commonest is the rather plain coloured Whitebacked Silverbill *Lonchura malabarica* (પેડાં) and to a lesser extent the Spotted Munia *L. punctulata* (પેડાં પેડાં) recognised by the distinct white spots on the flanks. The lovely Red Munia *Estrilda amandava* (પેડાં પેડાં) is a bird partial to wet places and tall reedbeds.

FAMILY 20. FRINGILLIDAE THE FINCHES (પેડાં) AND 21. EMBERIZIDAE THE BUNTINGS (પેડાં)

Both these Families of birds are closely related to the last Family and have the typical conical bill. The finches are represented by a single species the Common Rosefinch *Carpodacus erythrinus* (પેડાં) a fairly common winter visitor from the Himalayas. The finches like the buntings are ground feeders and subsist on grain, shoot and insects, though the rosefinches also eat young buds. The Blackheaded Bunting *Emberiza melanocephala* (પેડાં પેડાં) and the Redheaded Bunting *E. bruniceps* (પેડાં પેડાં) both have yellow lower parts and are winter visitors in large flocks. The Greynecked Bunting *E. buchanani* (પેડાં પેડાં) is an attractive bird in a subdued way and is also a fairly common winter visitor quietly feeding in the shade of rock and bushes in ravine country. The almost similarly coloured Striolated Bunting *E. striolata* (પેડાં પેડાં) is not too common in our area, though might be expected as a winter visitor to the more open, eroded ravines along the Mahi. The Crested Bunting *Aclophus lathamii* (પેડાં પેડાં) is a distinctive little bird with a jaunty, upright crest in both the sexes and the male is black with contrasty chestnut wings. It is a local and uncommon resident in ravines along the Mahi and elsewhere.

Conclusion : This brief survey gives us an idea of the varied bird-life of the Vadodara district and situated as it is between the wetter portions south Gujarat and the drier portions of north Gujarat, many more species of both types of ecological conditions are likely to occur and winter may bring forth many surprises as migrants drop in from the Palearctic region beyond the Rajasthan desert and the Himalayan mountains.

SNAKES

Snakes belong to class Reptilia and are classified under the order Ophidia. They are limbless reptiles with a dry scaly skins, which they cast off periodically. Such cast offs are called *exuvia*, which are used by some people for some medicinal purposes. Snakes do not have anything like ears as other living beings have. Nevertheless, they are sensitive to sound waves passing through the soil. The tongue is bifid and quivers in and out through the loose opening of the lower jaw. Moreover, certain depressions between the nostrils and eyes of some snakes are very sensitive to infra-red radiations and they can detect very minute temperature differences. Endowed with such qualities, the snakes can easily sense the presence of other animals. The jaws of the snakes are constructed in such a way that they can open their mouths very wide and can swallow large preys. The *Gazetteer of Baroda State* (1946) has mentioned as under :

“Snakes are plentiful throughout the State. The chief kinds are the Indian Python, *ajgar*, *Python Molurus*, the Cobra, *nag*, *Naja tripudians*, the *phursa*, *Echis carinate*, the Whip snake, *Passerita mycterizans*, the *dhaman Ptyas mucosus* and the *andhi* or as is common by the two-headed snake, *Eryx jonii*.”²

In the district, both poisonous as well as non-poisonous snakes are found. The snakes in the district have been grouped into a number of families. A brief account of the recorded snakes is given below :

(I) NON-POISONOUS SNAKES

FAMILY : BOIDAE

Indian Python (*Python molurus*) (*Ajgar*)

Indian Python is common in wooded parts of this area. Though mostly confined to the deeper and dense wooded areas, it is not very uncommon in the open terrains. Of all the snakes, python is the largest. Its length varies from 2,000 mm. to 7,000 mm. The weight of the python varies between 70 lbs. and 250 lbs. The body of the snake is yellow-brown in colour with

1. SHAH R. V. (Dr.), Professor and Head of the Department of Zoology, Faculty of Science, M. S. University of Baroda.

2. Baroda State., *Gazetteer of Baroda State*, (1946), p. 58.

oblique dark brown curving marks on it. It can easily climb the trees and swim efficiently in water. It mainly feeds on small birds, reptiles, mammals, rodents, and other animals. A large sized python is known to devour goats and also other big animals. In python there are curved pointed teeth on both the jaws as well as palate. They are lancet shaped.

Python is not a poisonous snake. When on trees it lies motionless waiting for a victim to come. Though it is a lethargic snake, on sight of the prey it becomes very active and hurls its head at the body of the prey. It kills its prey by strangulating it with the coils of its muscular body.

FAMILY : COLUBRIDAE

The Rat Snake (Ptyas mucosus)

The snake is known as *Dhaman* in Gujarati. It is a non-poisonous agile snake of very common occurrence, usually found in bushes and hedges. It feeds on birds and their eggs, frogs, lizards, rats, etc. Rodents are its favourite food and in this capacity it helps farmers. It reaches length of about 2.25 metres in males and 1.80 metres in females, when full grown. Its body has yellow brown colour with faint bands. The tail is slender and pointed.

It is a timid snake that can climb a tree and lives mainly in the plains. When cornered, it inflates the lower part of the head and bites viciously. It is oviparous.

FAMILY [E] BOIDAE

John's Sand Boa (Eryx Johnii)

The snake belongs to the kindred group of pythons and is seen more often. It is often mistaken to be the young one of the python, but it can be distinguished from the latter by the shape of its tail, the small scales on the head, and the colouration of the body, etc. It has a chocolate colour. The tail of the snake is blunt and stumpy and looks similar to the front end of the body. Hence there is a false belief that it has heads at both the ends of the body. It is found in bushy places as well as in dry field buried in soil. It survives on frogs, lizards and rodents. It is an oviparous and non-poisonous snake. The snake is much longer than *Eryx conicus*.

FAMILY : COLUBRIDAE •

The Wolf Snake (Oligodon venustus) Shankh bangani

The wolf snake is of grey colour with a brown tinge and paired blackish spots and a whitish border. The snake is also found occasionally in greener

parts where it mostly feeds on small birds and their eggs, rodents, lizards and even insects. It is also found near houses preferably coming out in the evening. It is also a non-poisonous and harmless snake and is oviparous.

FAMILY : COLUBRIDAE

The Common Wolf Snake (Lycoden aulicus)

The Common Wolf Snake is known as *Suvarpankhu* in Gujarati. It is another non-poisonous snake usually found in closer vicinity to human habitations in bushy places and dark shady areas. It is brown or purple dorsally and with grey spots edged with white, which form a reticulate pattern of cross-bars expanding laterally. It climbs trees quickly and on land shows active movements. It is very vicious and bites ferociously. Its main food consists of lizards, gekos, frogs and small mammals as well as bird eggs. It is nocturnal in habits. It readily enters human habitations and is oviparous. One can easily mistake this snake for Krait, due to the shape of faint cross-bars.

FAMILY : COLUBRIDAE

The Checkered Keel-back (Natix piscator) and Buff striped Keel-back (Natix stolata).

These are non-poisonous snakes usually found near water. The bodies of these snakes are greenish or grayish black in colour. These snakes feed usually on frogs, fishes and other small animals normally found near water and in humid surroundings.

The Checkered Keel-back is known as *Neer mandli* in Gujarati. Its length is 900 mm. in males and 1,200mm.in females. It is olivaceous snake with dorsal black spots arranged in a pattern, one series on vertebrae, two at sides and two laterally. The eyes are round and seem surrounded by a white circle.

This is a very common snake of the plains which goes near water to eat frogs and fish. It is often encountered in paddy fields during rains or one could meet it near shallow pond banks.

A number of personse are often bitten by this snake. It bites very viciously, often flinging at the victim. The snake is non-poisonous and oviparous.

The Buff-striped Keel-back has a length of 720 mm. in males and 620 mm. in females. It is an olive green snake with reticulated black spotted irregular cross-b. rs dorsally, and two buff coloured longitudinal stripes running all along the body. Its head is with black bordered shields.

(Bk) H-112—9 (Lino)

This is a very common snake and seen in large number during monsoon months. It is very docile and could be handled with ease. It feeds chiefly on frogs and insects and is an absolutely harmless snake.

FAMILY : TYPHILOPIDAE

The Common Blind Snake (Typhlops braminus)

This snake is known as *Andhali Chakran* in Gujarati. It is a small non-poisonous snake and so called blind snake which looks more like an earthworm than a snake. Its length is about 5 to 8 inches (127 mm. to 178 mm). Due to its scaly body it could be easily distinguished from an earthworm. The earthworm has circular rings round the body. The snake is of a brown colour. It is usually found in damp places and also superficial burrows under the soil. Sometimes it is recovered from uncleaned bathrooms in rural homes. It feeds on small worms and insects. The head of this snake is not distinct from the body and the tail end is blunt with a small point. These snakes are usually oviparous.

(II) POISONOUS SNAKES

FAMILY : ELAPIDAE

The Cobra (Naja naja)

The cobra is known as *nag* in Gujarati and is the most dreaded snake in Gujarat. The head of this snake is not very distinct from the neck. The neck region is dilatable, the ribs being elongate. The expansion of this region forms the hood which bears on the upper side a binocellate mark which some people call a mark of spectacle or the figure of ten. The underside of the hood bears two dark round spots running to four scales surrounded by white lateral borders. The length of this snake is 1,800 mm. The snake is brown or dark in colour. Its eyes are round, equal in diameter to its distance from the mouth. This snake is normally seen in the open land and fields in the evening or early morning. In old thatched roofed houses, it has been seen under roof where it may have gone in search of its prey. In very old buildings, it has been noticed to remain in crevices, presumably in the cool dark places where rats are also available. It feeds on rats, frogs, birds, etc.

In the district the snake is worshipped. On *nagpanchmi* day, it is taken from house to house, and milk and money collected. Many old buildings are believed to be inhabited by a cobra which is "guarding the wealth."

In a watchful and on-guard stance, the hood is spread and the front part of the body is held upright in readiness to strike. It normally raises the hood about 2½ feet from the ground. The poison of this snake is primarily

neurotoxis. There is less pain, slight swelling, irritation and death is due to respiratory failure. If a sufficient amount of venom has been injected by this snake, the only remedy is antivenin.

FAMILY : ELAPIDAE

The Common Krait (Bungarus caeruleus)

The common krait is known as *Kalotaro* in Gujarati. The length of the snake is about 1,500mm. It is steel blue and shining in colour with distinctly enlarged chain of hexagonal scales on the dorsal side. The head of this snake is not distinct from the neck. Its eyes are moderate or small with round pupils. There are rows of paired white stripes across the body. The snake is nocturnal in habit and lives in cracks in walls or in heaps of stones or bricks.

It is a deadly poisonous snake living usually in open plains and fields. Its poison is neurotoxic. There is not much pain at the site of the bite but in about an hour the patient feels sleepy and unless an antivenom is given in time and if a lethal dose of venom has been injected, the patient may not survive. This snake not only eats mice but also eats other snakes too.

FAMILY : VIPERIDAE

The Russell's Viper (Vipera russelli)

The snake is known as *Chital* in Gujarati. The length of the snake is about 1,600 mm. in females and males are slightly longer. It has a yellow brown colour with dark circular marks all over the body. These marks usually have lighter margins. The head is triangular and the head scales on top are very small, imbricate and keeled. The eyes have a white border with golden iris and elliptical pupil.

The vipers have the habit of hissing loudly and continuously, if disturbed. The snake is found in rocky and bushy regions where the colouration of the skin is in keeping with the surroundings. The chief food of the snake comprises rats, mice, lizards and birds.

FAMILY : VIPERIDAE

Side Winder or Saw Scaled Viper (Echis carinatus)

The snake is known as *Fursa* in Gujarati. It is a relative of Russell's Viper, but is small in size. Its length is about 550 mm. It is not as common as Russell's Viper is. This small poisonous snake has a head that is triangular and bears a typical white arrow mark on a brown background. Its body is greyish brown with a series of uniform pale marks forming a curve

over the body. The under surface is white with black spots at the two ends of the scales. It often assumes sigmoid curved position with head in the centre and moving as a side winder and making a sawing noise by rubbing the scales. It is a deadly poisonous snakes found in cool, shady and rocky places and is very agile. The food of the snake consists of frogs, lizards, snakes, scorpions, and a large number of insects. On being disturbed, it strikes, rising upto a height of about eight inches from the ground. Even while moving, the head is often flipped for a strike. Being small and lying under stones and in soil and also because of the colouration being matching with the surroundings, the people get bitten before they become aware of its presence.

It is a pretty poisonous snake, but the amount of venom given at a time is not sufficiently lethal to man. There are always complications after a bite. There is swelling, oozing and within 24 to 36 hours the man starts bleeding from gums, kidneys, nose, etc. The death is due to these complications which kill a man after a number of days. This is unlike the Cobra and Krait bite when the death is more or less on the same day.

FISH

Vadodara district has no opening to the sea as the district is land-locked. Therefore, the only type of fisheries that can be developed in the district are riverine and tanks. However, pisciculture in these local sheets of water is limited by the vested interests of fishermen and strong religious sentiments. The most common difficulty in this respect is that none of the societies come forward for bidding in the auction for licence and consequently the local sheets of water stocked with fish have to be disposed off at very low rates. On many occasions, the other difficulty is that the village people do not allow the use of local ponds, etc. for netting fish.

In the past Baroda State contributed substantially towards the development of Fisheries Department which was started in 1937. The Director was invested with the powers of Sar Suba.

Most of the fishermen who are engaged in fishing in the district have established themselves on the banks of the rivers Mahi and Narmada. In 1971 the total population of fishermen in the Vadodara district was 3,661. Out of this population 609 were active fishermen, while others were engaged in jobs like agricultural labourers, etc. The fishermen belong to Machhi and Koli castes.

The sub-joined Statement I.3 gives information about the leading villages, number of active fishermen, fishermen's co-operative societies number of fishing boats and total fish-catch production during the year 1973-74.

1. The Commissioner of Fisheries, Gujarat State, Ahmadabad.

STATEMENT I.3
Fisheries in Vadodara District, 1973-74

Sl. No.	Leading place and Taluka	Number of active fishermen	Fishermen's primary co-operative societies		No. of fishing boats		Total fish catch production during 1973-74	
			Nos.	Members	Mechanised	Non-mechanised	Kgs.	Value in Rupees
1	2	3	4	5	6	7	8	9
1	Vadodara (Vadodara)	..	1	81	..	..	43,001	1,95,590-00
2	Bhadarava (Savli)	..	..	..	..	16	35,920	1,56,200-00
3	Dabeka (Padra)	..	1 (Ganesh)	11	..	11	10,590	31,747-00
4	Mahmadpura (Padra)	..	1 (Ganesh)	15	..	15	10,835	35,710-00
5	Anagadh (Vadodara)	..	1 (Ganesh)	20	..	35	16,005	50,535-00
6	Motikoral (Karjan)	..	1	26	..	27	30,665	83,195-00
7	Sinor (Sinor)	..	..	..	..	3	7,710	18,923-00
8	Virjig (Karjan)	..	1	3	..	..	64,060	2,35,300-00
9	Malsar (Sinor)	..	..	..	..	2	8,780	21,775-00
10	Akalbara (Padra)	..	..	..	..	3	4,215	13,220-00
11	Umaraya (Padra)	..	..	..	..	..	3,115	9,195-00
12	Kahona (Savli)	..	..	..	..	2	4,520	8,485-00

STATEMENT 1-3—concl'd.

Sl. No.	Leading places and Taluka	Number of active fishermen	Fishermen's primary co-operative societies		No. of fishing boats		Total fish catch production during 1973-74	
			Nos.	Members	Mechanised	Non-mechanised	Kgs.	Value in Rupees
1	2	3	4	5	6	7	8	9
13	Mandva (Dabhoi)	5	..	..	..	..	3,390	7,180.00
14	Sayar (Karjan)	10	..	..	..	3	3,500	6,920.00
15	Chandod (Dabhoi)	4	..	..	..	1	5,900	12,560.00
16	Kathiya (Karjan)	19	..	..	..	8	12,720	32,020.00
17	Ranapur (Karjan)	5	1	..	..	2	10,845	27,055.00
18	Dabhoi (Dabhoi)	2	..	..	1	..	19,117	72,070.80
19	Jaspur (Padra)	..	..	..	..	..	2,115	10,375.00
20	Sindhrot (Vadodara)	..	..	..	..	..	2,030	6,950.00
21	Pura (Karjan)	..	..	..	..	..	18,550	38,230.00
Total		596	6	156	..	129	3,17,563	10,53,271.80

Today estimated fish production from inland waters is at 4 to 5 tonnes per day.

The Gujarati and English names of fish available in the district are given below :

Sl. No.	Gujarati Name	English Name
1	Bakara	Perch
2	Palawa	Hilsa-Elisha
3	Palawa-Chakshi	Hilsa-Tolly
4	Rohu	Rohu
5	Kantiya	Cat-Fish
6	Zinga	Prawns
7	Boi	Mullet
8	Dhongari	Jew-fish
9	Padin	Murrail
10	Dalai	Cat-fish
11	Bangada	Tila-piya
12	Bawas	Catla
13	Bilji	Gobi
14	Nagari	Mirigal
15	Giria	Major-carp
16	Kadana	Murrail
17	Dhebari	Barb

In the year 1973-74 the total production of fish was 3,18,663 kgs. valued at Rs. 10,53,689.80. Out of this 63,732 kgs. valued at Rs. 8,30,951.80 were locally consumed and 2,54,931 kgs. valued at Rs.2,22,738.00 were exported to other places.

CLIMATE

The climate of this district is characterised by a hot summer, and general dryness except during the monsoon season. The year may be divided into four seasons. The cold season is from December to February. This is followed by the summer season from March to June. The period from June to September is the southwest monsoon season. October and November constitute the post-monsoon season.

1. Deputy Director General of Observatories, (Climatology and Geophysics), Poona.

Rainfall

Records of rainfall in the district are available for 4 stations for periods ranging from 35 to 75 years. The details of the rainfall at these stations and for the district as a whole are given in Statements I.4 and I.5. The average annual rainfall in the district is 953.8mm. (37.55"). The rainfall in the district increases generally from the west towards the east. About 95 per cent of the normal annual rainfall in the district is received in the monsoon months-June to September, July being the rainiest month. The variation in the annual rainfall from year to year is large. During the 50 year period, 1901 to 1950 the highest annual rainfall amounting to 190 per cent of the normal occurred in 1917, while the very next year was one with the lowest annual rainfall which was only 30 per cent of the normal. In 1927 also the total annual rainfall in the district was 81"1. In the same 50 year period the annual rainfall in the district was less than 8 per cent of the normal in 11 years, none of them being consecutive. However, considering the annual rainfall at the individual stations, such low rainfall in two consecutive years occurred at all the 4 stations. It will be seen from Statement I.5. that the annual rainfall in the district was between 700 and 1,200mm. (27.56" and 47.24") in 29 years out of 50.

90 to 95 per cent of the annual rainfall occurs during the monsoon season and most of it is generally associated with movement west or north-westwards towards Gujarat of the depressions from the north Bay of Bengal. There being no long ranges of high hills in Gujarat, there is no regular rainfall during monsoon months.

The following points are significant :

There is more rainfall to the east of Vadodara in the Chhota Udepur and Naswadi areas. That is due to the combined effects of the western ends of Satpura and Vindhyan ranges and of the nearness of these regions to the tracks of the depressions from the Bay of Bengal referred to above.

On an average there are 42 rainy days (*i.e.* days with rainfall of 2.5 mm. 10 cents or more) in a year in the district. This number varies from 28 at Pavi Jetpur to 53 at Chhota Udepur.

The heaviest rainfall in 24 hours recorded at any station in the district was 460.3 mm. (18.12") at Vadodara on 24th September, 1945.

Temperature

There is a meteorological observatory in the district at Vadodara. The records of this observatory may be taken as representative of the conditions prevailing in the district in general. The period from March to May is one of the continuous increase in temperatures. The day temperatures during May are the highest, being about 40.5°C (104.9°F). The heat particularly

1. RAJYAGOR S. B. (DR.), *Gujarat Ek Darshan*, Vadodara, (1969), p. 133

in the latter part of the summer season is intense and on individual days temperatures may go up to about 45° C (113.0° F). With the onset of the monsoon early in June there is appreciable drop in the day temperatures but nights are as warm as during the summer. After the withdrawal of the monsoon by about the end of September there is slight increase in day temperatures and a secondary maximum in day temperatures is reached in October. However, the night temperature decreases after the withdrawals of the monsoon. After mid-November both day and night temperatures decrease rapidly till January which is the coldest month. The mean daily maximum temperature in January is 30.1° C (86.2° F) and the mean daily minimum 10.6° (51.1°F). The district is sometimes affected by cold waves in association with western disturbances passing across north India and the minimum temperature may reach the freezing point of water.

The highest maximum temperature recorded at Vadodara was 46.7° (116.1°F) on 20th May, 1955. The lowest minimum was 1.1 C(30.0°F) recorded on 15th January, 1935.

Humidity

During the south-west monsoon season relative humidity is high, generally exceeding 70 per cent. In the rest of the year the air is dry. The driest part of the year is the period from February to April with relative humidities less than 30 per cent in the afternoons.

Cloudiness

Skies are generally heavily clouded or overcast in the south-west monsoon season. Cloudiness rapidly decreases in the post-monsoon season. Skies are mostly clear or lightly clouded during the period December to May.

Winds

Winds are generally light with some strengthening in force during the late summer and early part of the south-west monsoon season. Winds blow mostly from the south-westerly and westerly directions during the period from May to September. Winds blow from the north or north-east during the post-monsoon and early winter months. In the latter half of the cold season and the first two months of summer winds are mostly from directions between south-west and north-west.

Special Weather Phenomena

An occasional storm from the Arabian Sea in the late summer season, and in the post-monsoon season may affect the weather over the district causing heavy rain.

Statements I.6, I.7, and I.8 give the temperature and humidity, mean wind speed and special weather phenomena respectively for Vadodara.

(Bk) H-112—10 (Lino)

STATEMENT
Normals and Extremes

Station 1	Number of years of data 2	Jan- uary 3	Feb- ruary 4	Mar- ch 5	April 6	May 7	June 8	July 9	Aug- ust 10	Sept- ember 11
Dabhoi	24 a	1.5	1.0	0.3	2.5	2.5	127.5	454.9	251.7	216.9
	b	0.2	0.1	0.1	0.1	0.3	5.6	17.1	12.4	8.4
Chhotu-Udepur	50 a	4.3	2.0	2.5	0.5	9.9	128.5	441.2	336.0	216.4
	b	0.4	0.3	0.1	0.0	0.4	6.3	17.7	16.5	8.8
Vadodara-Residency	a	2.3	2.3	1.0	0.3	5.3	131.8	351.0	226.8	138.9
	b	0.2	0.2	1.0	0.0	0.4	5.5	14.1	11.3	5.1
Jetpur (Jambugam)	28 a	1.0	2.5	0.8	4.6	7.1	122.9	260.6	109.7	96.3
	b	0.2	0.2	0.1	0.2	0.4	4.1	10.1	7.1	4.4
Vadodara (District)	a	2.3	1.9	1.1	2.0	6.2	127.7	376.9	231.1	167.1
	b	0.3	0.2	0.1	0.1	0.4	5.4	14.7	11.8	6.9

I-4
of Rainfall

Octo- ber 12	Nov- ember 13	Dece- mber 14	Annual 15	Highest annual rainfall as percent of normal and year** 16	Lowest annual rainfall as percent of normal and year** 17	Heaviest rainfall in 24 hours	
						Amount (mm) 18	Date 19
35.1	11.9	2.0	1,107.8	156 (1945)	35 (1948)	348.0	1945 September, 24
1.8	0.7	0.3	47.1				
29.5	10.7	1.5	1,183.0	178 (1945)	32 (1918)	286.0	1959 September, 5
1.6	0.6	0.2	52.9				
28.5	5.1	1.0	894.3	179 (1917)	23 (1918)	460.3	1945 September, 24
1.2	0.4	0.1	39.6				
20.3	3.3	1.5	630.6	209 (1949)	24 (1939)	340.1	1959 September, 5
1.0	0.2	0.1	28.1				
28.3	7.7	1.5	953.8	190 (1917)	30 (1918)		
1.4	0.5	0.2	42.0				

(a) Normal rainfall in mm.

(b) Average number of rainy days (days with rain of 2.5 mm or more).

* Based on all available data up to 1961.

** Years are given in brackets.

STATEMENT I-5

Frequency of Annual Rainfall in the District
(Data 1901-1950)

Range in mm 1	No. of Years 2	Range in mm 1	No. of Years 2
201-300	1	1001-1100 ..	8
301-400	0	1101-1200 ..	3
401-500	1	1201-1300 ..	6
501-600	3	1301-1400 ..	2
601-700	4	1401-1500 ..	2
701-800	7	1501-1600 ..	0
801-900	6	1601-1700 ..	1
901-1000	5	1701-1800 ..	0
.. ..	..	1801-1900 ..	1

STATEMENT I-6

Normals of Temperature and Relative Humidity, Vadodara.

Month	Mean Daily Temperature		Highest Maximum over recorded		Lowest Minimum ever recorded		Relative Humidity	
	°C	°C	°C	Date	°C	Date	0830	1730*
January	30.1	10.6	36.2	1961 Jan. 25	1.1	1935 Jan. 15	69	36
February	32.3	12.3	41.7	1953 Feb. 28	1.7	1950 Feb. 10	63	29
March	36.5	16.1	43.3	1959 Mar. 23	6.7	1936 Mar. 3	53	23
April	39.7	21.5	45.9	1958 Apr. 26	11.7	1955 Apr. 16	56	22
May	40.5	25.9	46.7	1955 May. 20	18.9	1939 May. 5	67	33
June	37.3	27.1	45.6	1945 June. 11	21.7	1957 June. 5	74	52
July	32.1	25.3	40.0	1939 July. 5	21.1	1943 July. 19	87	77
August	31.7	24.8	37.2	1947 Aug. 16	22.8	1953 Aug. 11	86	72
September	32.5	24.0	41.1	1951 Sep. 30	18.9	1938 Sep. 29	85	67
October	35.3	19.4	41.7	1951 Oct. 13	11.7	1955 Oct. 30	75	50
November	33.3	14.0	38.3	1951 Nov. 22	7.2	1938 Nov. 30	68	47
December	30.9	10.7	36.1	1941 Dec. 9	3.3	1937 Dec. 22	72	41
Annual	34.3	19.3					71	46

* Hours I.S.T.

STATEMENT I-7

Mean Wind Speed in Km./hr., Vadodara

Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
4.0	3.7	4.0	5.5	9.2	10.6	8.7	7.4	5.0	2.7	2.7	3.2	5.6

STATEMENT I-8

Special Weather Phenomena, Vadodara

Mean No. of days with 1	Jan. 2	Feb. 3	Mar. 4	Apr. 5	May. 6	Jun. 7	Jul. 8	Aug. 9	Sept. 10	Oct. 11	Nov. 12	Dec. 13	Annual 14
Thunder	..	0.1	0.1	0.2	0.0	0.2	1.7	0.8	0.6	1.0	0.7	0.3	0.0 5.7
Hail	..	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.2
Dust-Storm	..	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0 0.3
Squall	..	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0
Fog	..	0.3	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.1	0.7

PART II

CHAPTER II

HISTORY

Ancient Period

PRE-HISTORIC PERIOD

Archaeological explorations have brought to light the existence of the Early Man of the Paleolithic or Old Stone Age in the Mahi Valley at a number of sites within 16 to 32 km., north and north-east of the Baroda (Vadodara) area,¹ as also in the valleys of rivers Orsang and Narmada, nearly 32 to 48 km., to the south and south-east of it.²

The next phase in the pre-historic culture witnessed the settlement of the Man of the Microlithic Age on the right bank of the river Vishwamitri in the present Vadodara area. During this period, the man made microliths or very small tools of fine grained stones like agate, chert, chalcedony, quartz, etc., were found. Within radius of 32 km., with Vadodara (Baroda) as the centre, about 30 rich sites of this culture, including 'Factory sites' were found.³

The excavations at Akota, a suburb of Vadodara, have revealed a rich deposit of microliths resting right on the virgin soil, showing that the Man of this period was the first settler at this place. He lived on hunting and fishing. This culture could be ascribed not later than 1,000 B. C.⁴

THE MAURYAN PERIOD

The documented account of the historic period of Gujarat commences with the Mauryan period (Circa 322. B. C.—185 B. C.). Epigraphic records testify to the existence of the authority of the Mauryan emperors Chandragupta and Asoka over Gujarat, who ruled through their governors. According to the Jain tradition, Samprati, the grandson of Asoka, too,

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1. B. SUBBARAO, "Archaeological Explorations in the Mahi Valley," *Journal of the Baroda University*, Vol. I, (Baroda, 1952), pp. 34-72.
 2. SANKALIA H. D., *Investigations into the Pre-historic, Archaeology of Gujarat*, (Baroda, 1945), pp. 44 ff., 105 ff.
 3. B. SUBBARAO, *op. cit.*
 4. B. SUBBARAO, *Baroda through the Ages*, (Baroda, 1953), pp. 9 f., 105 f.

ruled over Saurashtra. Though there is no direct evidence, it is quite probable that the Mauryan province of Gujarat included the territory round about present Vadodara, which lay on the ancient highway between the adjoining provinces of Rajasthan and the Deccan under the Mauryan rule.¹

THE POST-MAURYAN PERIOD

Among the ancient remains discovered at Akota, the old stones used for the pavement of the Bhimanath Mahadev temple bear some mason marks, which are paleographically assigned to the 2nd century B. C.² It is, therefore, quite probable that the habitation of Akota dates from at least that period, which witnessed the rule of the Indo-Greek kings of Bactria. The coins issued by Eucratides (*circa* 165 to 155 B. C.), Menander (*circa* 155 to 130 B. C.) and Apollodotus II (*circa* 115 to 95 B. C.) testify to the existence of Indo-Bactrian rule in Gujarat.

THE KSHATRAP PERIOD (*circa* 78-400 A. D.)

In the 1st century of the Christian era, Gujarat passed under the rule of the Western Kshatrapas, who probably belonged to the Scythian or Shaka race.

The power of Nahapāna (whose reign is now to be assigned prior to 78 A. D.)³ extended from Ajmer in Rajasthan to Nasik in the Deccan across the mainland of Gujarat, but he lost his kingdom to the Satavahana king Gautamīputra Shātakarni of the Deccan. The Elephant Type and Lion Type Coins found at Karvan (ancient Kayavarohan) in Vadodara district seem to have been introduced subsequent to the Satavahana conquest of Gujarat.⁴ The discovery of a hoard of lead coins of the Sātavāhanas at Karvan⁵ corroborates this inference. The two restruck coins unearthed at Akota are assigned to the early Kshatrap period.⁶

King Rudradaman of another Kshatrap family recovered the territories in Gujarat, Madhya Pradesh and Rajasthan in about 140 A. D.

1. B. SUBBARAO, *Baroda through the Ages* (Baroda 1953) pp. 9 f., 105 f. pp. 104, 107.

2. *Ibid.*, pp. 107.

3. The recent discovery of the Andhau inscription of Chashtana, dated (Shaka) year 11, i. e., 89-90 A. D. (*Journal of Ancient Indian History*, Vol. II, (Calcutta, 1970) Nos. 1-2, pp. 104 ff., leads us to take the years given in the inscriptions of the time of Nahapana as regnal years and date the reign of Nahapana prior to that of Chashtana.

4. *Journal of the Numismatic Society of India*, Vol. XII, (1950), pp. 20-81.

5. MAJUMDAR M. R. (F. d.), *Chronology of Gujarat*, (Baroda, 1960), p. 104.

6. B. SUBBARAO, *Baroda through the Ages*, (1953), pp. 78 f.

The small township of Akota had developed into a commercial centre. Two beautiful clay seeds of the Graeco Roman style¹ and the Bronze Handle of a Roman amphora, bearing the figure of Eros² attest to the commercial contact Akota had with the Roman empire. Another evidence of this commercial contact was the import of the technique of making a fine Red Polished Ware resembling the Roman Samian Ware³ and its successful imitation. The people lived in well built houses made of burnt bricks.⁴

At Karvan was found fine Roman cameo of the 2nd century A. D.⁵

Karvan in Dabhoi taluka represents old Kāyāvarohana, which is the celebrated centre of the Pashupata sect. This sect was propounded by Lakulisha, a Shaiva pontif, believed to be the twenty-eighth incarnation of God Shiva. He seems to have flourished in the first quarter of the 2nd century A. D.⁶

The district seems to have been under the Kshatrap rule up to about 400 A. D.

THE GUPTA PERIOD (*circa* 400-770 A. D.)

After the decline of the Kshatrap power, the Gupta king Chandragupta II *alias* Vikramāditya extended his sway over Western India and issued silver coins in limitation of the Kshatrap coins which were in use here since long. His son Kumāragupta I (*circa* 415-455 A. D.) and grandson Skandagupta (*circa* 455-468 A. D.) ruled over Gujarat and issued hundreds of silver coins for this province. The discovery of a Gupta coin at Akota and some Gupta coins at Karvan show the existence of the Gupta regime over this district.

THE MAITRAKA PERIOD (*circa* 470-788 A. D.)

The imperial power of the Gupta sovereigns declined after the death of Skandagupta and Senapati Bhataraka of the Maitraka family established his royal power at Valabhi in about 470 A. D. The Maitraka kings ruled over Saurashtra, North Gujarat and Western Malwa up to 788 A. D. Kheda district, too, was under their sway. Over and above this the western part of the Vadodara district was located in the *Bharukachcha Viśaya* during this period.

1. B. SUBBARAO, *Baroda through the Ages*, (1953), pp. 78 f. p. 87.

2. *Ibid.*, pp. 6, 110.

3-4. 1-13. *Ibid.*, p. 110.

5. MEHTA R. N., *A Roman Cameo from Karvan*, *Journal of the Baroda University*, Vol. 11, (1952).

6. *Epigraphia Indica*, Vol. XXI, p. 7.

The Sarsavni plates of the Katakuri king Budharaja,¹ dated 609 A. D., record the grant of a village situated in the Gorajja Bhega in *Bharukachcha Viśaya*. Gorajja is identified with modern Goraj in the Vaghodia taluka of this district, and the village was Kumariwada situated near Brhannarika. The former is identified with Kumvarvad and the latter with Banaiya, both in the Dabhoi taluka. Dabhaka, where the donee resided, is represented by modern Dabka in the Padra taluka. Thus the grant indicates that this part of the Vadodara district was under the Katakuri power at the beginning of the 7th century. But the Katakuris lost their power within a few years and this region passed under the sway of the Maitrakas.

The Maitraka king Dharasena IV marched upto Broach (Bharuch) victoriously in 648 A. D. In 676 A. D., the Maitraka king Shiladitya III issued grants of land near Antikā in *Bharukachcha Viśaya*.² The grantee resided at Shraddhikā in its vicinity. Antika and Shraddhikā are identified respectively with the present Anti and Sathi villages of Padra taluka, but the Maitrakas soon lost the *Bharukachcha Viśaya* to the Gujarat kings of Nandipuri. In 677 A. D., Dadda III granted the village Uvarivedra in Korillā.³ Korillā, the headquarters of the division can be identified either with Koyli in Vadodara taluka, or Kural in the Padra taluka or Kurali in the Karjan taluka. In 706 A. D., King Jayabhata III encamped at Kāyāvātāra,⁴ i. e., Kāyāvarohana or Karvan. From this camp he issued a grant of land to a Brahman of Shraddhikā. The land was located in the *Korillā Pathaka*, comprising 84 villages.

The city of Ankottaka (Akota) flourished peacefully during this period, though it was subjected to periodical heavy floods.⁵ In the sixth century the habitation area was shifted to the south, away from the river towards the present suburb of Akota.⁶ The habitation of the present Kothi area of the city began about this time.⁷

The ruins of the old site of Akota have yielded a huge hoard of Jain bronzes, many of them belonging to this period.⁸ They represent images of Tirthankaras like *Rishabhānāth*, *Ajitanātha*, *Pārśvanātha* and *Jivantasvāmin* (i. e., Mahāvira meditating in his palace prior to renunciation) and their Yakshas and Yakshinis. Among the other bronzes, an elephant-shaped incense-burner deserves special notice. A number of these bronzes bear

1. *Epigraphia Indica*, Vol. VI, pp. 294 f.
2. GADRE A. S., *Important Inscriptions from the Baroda State* (Baroda, 1943), pp. 16 ff.
3. *Epigraphia Indica*, Vol. XXVII, pp. 199 f.
4. *Indian Antiquary*, Vol. XIII, pp. 77 f.
5. B. SUBBARAO, *Baroda through the Ages*, p. 10.
6. *Ibid.*, p. 114.
7. *Ibid.*, p. 10.
8. SHAH U. P., *Akota Bronzes*, pp. 26-48.

inscriptions, which have been helpful in fixing their dates. The dating of the bronzes indicates that Akota was a good centre of Jainism during this period.

The eastern part of the district, however, formed a separate *Viśaya*. Its headquarter was *Sengamakhataka*, represented by modern Sankheda. It was so named being situated on the Sangama (confluence) of the Orsang and the Unchh rivers. The Sankheda copper-plate of the time of the Kalaccuri king Sankara (ga) na¹ (circa 595 A. D.) records the grant of land in the sub-division of *Tandulapadraka*, which is identified with Tandalaja in the Sankheda taluka.

In 642 A. D., the *Viśaya* was ruled by the Gurjara kings of Nandipuri. The two Sankheda copper-plate grants issued by king Dadda II in that year refer to some places situated in *Sangama Khetka Viśaya*.² The location of these places indicates that this *Viśaya* extended up to the Narmada river in the south.³

Thus the entire territory represented by modern Vadodara district was in course of time under the Gurjara kings of Nandipuri, who subsequently shifted their capital to Broach (Bharuch).

THE POST-MAITRAKA PERIOD (788-942 A. D.)

Shortly after the fall of the Gurjara kingdom in south Gujarat, the Rashtrakuta kings of the Deccan established their rule over Lāta with its capital at *Khetaka* (Kheda).

It naturally included the region between the Mahi and the Narmada rivers, which is partly represented by the Vadodara district. The founder of the Lata branch was Indra, younger brother of Govinda III. In 812 A. D., Karka Suvarṇavarsha, son and successor of Indra, granted the village *Vadupadraka* to a Brahman from Valabhi.⁴ The village was situated in *Ankottaka-84* and the city of Ankottaka lay just to the west of it. *Vadupadraka* is identified with modern Vadodara and Ankottaka with Akota, which is now a suburb of Vadodara. The particulars about the grantee indicate that Brāhmins of Valabhi migrated to prosperous places like Ankottaka and settled there.

In 813 A. D., Mahasāmanta Buddhavarsha granted a village located in Siharakhi-12, which he received from Govinda Prabhūtarsha, younger

1. *Epigraphia Indica*, Vol. II, pp. 21 f.
2. *Ibid.*, Vol. V, pp. 3 ff.
3. SHASTRI H. G., *Maitraka-Kalin Gujarat*, Part I, p. 299.
4. *Indian Antiquary*, Vol. XII, pp. 156 f.

brother of Karka Suvarnavarsha.¹ Siharakhi, the headquarters of the fief, is identified with Sharakhi in the Vadodara taluka.

In 817 A. D., Karka Suvarnavarsha issued the grant of a village located in the region between Mahi and Narmada and a village located in *Mankanika* Bhukti.² The former named Samipadraka, is identified with Sandarana in the Karjan taluka. Of the adjacent villages mentioned in the grant, Chorundaka, Bharthanaka and Dhahadva are identified with Choranda Bharthana and Dhavat respectively.

Mañkanikā, the headquarters of the Bhukti, is identified with Mankani in the Sankheda taluka, which lies to the south of the river Orsang. The village Sambandhi given in the grant is represented by modern Samadhi in the north of the river. Of the adjacent villages mentioned in the grant, *Kāshthāmaṇḍapa* is identifiable with Kathamandava, and *Brahmanapallika* with Bamroli.

Thus the entire area represented by the Vadodara district was under the Rashtrakūṭas in the 9th century, who held the sway over Lāṭā at least up to the middle of the 10th century.

The city of Ankottaka was in a prosperous conditions during this period. The hoard of Akota bronzes contains some bronzes which are assigned to this period.³ Many of them represent images of *Parshvanatha* and his attendants, while some represent images of Ambika.

THE SOLANKI PERIOD (942-1304 A. D.)

The Rashtrakūṭa power in the Deccan was uprooted by the Western Chalukyas of Kalyan under their ruler Tailapa II. His general Bārappa, who also belonged to the Chālukya family, established a kingdom in Lāṭā. The establishment of this new kingdom coincided with the rise of the Solanki dynasty in the North Gujarat. The latter tried to extend its power over Lāṭā but Bārappa and his successors retained their power in Lāṭā for a pretty long period. Their capital was Nāndīpura (Nandod).

The territory represented by Vadodara district remained under the power of the Chaulukyas of Lāṭā. A copper-plate grant dated 999 A. D.,⁴ of Kirtirāja was found at Jambuvada in the Vaghodia taluka. In 1019 A. D., the king granted a village in Vyāghuriya-845 Vyaghuriya is identified

1. *Epigraphia Indica*, Vol. III, pp. 53 f.
2. *Journal of the Bombay Branch of the Royal Asiatic Society*, Vol. XX, pp. 131 f.
3. SHAH U. P., *Akota Bronzes*, pp. 48-55.
4. B. SUBBARAO, *Baroda through the Ages*, pp. 115 f.
5. *Ibid.*, p. 116.

with Vaghodia. For some time, the eastern part of the district was under the power of Suradiya, a feudatory of the Paramara king Bhojadeva of Malwa. He ruled over *Sangawakhetaka Mandla*. His son Jasoraja made a grant of land in V. S. 1103 (1047 A. D.) at the *Shiva* temple situated on the confluence of Mana river. The place is represented by Tilakwada, the findspot of the plates and headquarters of the present Tilakwada taluka. The grant was dedicated to the temple of Ghanteshwara at *Ghaṇṭāpalia* which is identified with Ghantoli in the Sankheda taluka.

King Karna of Anahilwad established his authority over Lāṭā. In 1074 A. D., he granted a village located in Nagasarika (Navasari) *Viśaya* in his possession. The intervening territory represented by Vadodara district, too, must have passed under the power of the Chaulukyas of Anahilwad, but the Chalukyas of Nandod succeeded in recovering their lost territory within few years. The Sanja plate of king Trivikramapāla, dated 1077 A. D., records that the lost territory was recovered through the prowess of Maharaja Jagatpāla, the uncle of king Trivikramapāla, who vanquished the forces of the enemies on the bank of the Vishvamitri river in *Vaṭapadraka Viśaya*.¹ The reference indicates that the administrative division of Ankoṭṭa-84 was replaced by *Vaṭapadraka Viśaya* by this time.

The lower limit of the bronzes in the huge hoard found at Akota is the eleventh century A. D.² The legend on the bronzes contains references to Jain shrines like *Raiha-Vasatika* and *Ankolaka-Vusatika* of Dronacharya. But now the centre of Jainism also shifts to *Vadapadraka*.

In Lāṭā the dynasty of Bārappa came to an end and this territory again passed under the power of the Chaulukyas of Anahilwad. During the reign of Siddharāja Jayasimha (1094-1143 A. D.) *Vatapadraka* (Vadodara) was represented as the *tilaka* of Lāṭā.³ A MS of Panchavastuka written at *Vatapadraka* in 1123 A. D., indicates that *Lāṭāmaṇḍala* was then governed by Santūka, the renowned minister of Siddharāja Jaysinha.⁴

The minister organized a magnificent *rathayatra* (chariot procession) at *Vaṭapadraka*.⁵ Chandraprabhasuri composed a Prakrit work at *Vaṭapadraka* in 1128 A. D.⁶ During the reign of Kumarpala (1143-1173 A. D.), some Jain MS were copied at *Vatapadraka*, e. g., one in 1156 and another

1. PANDYA A. V., *New Dynasties of Gujarat, History*, p. 13 f.
2. SHAH U. P., *Akota Bronzes*, p. 61.
3. *Vide Prasasti of Viragani's Commentary on Pindaniryukti*, (L. B. Gandhi, *Atihasik Lekha Sangraha*, Baroda, 1963, p. 397).
4. *Ibid.*, p. 399.
5. *Ibid.*, p. 400.
6. *Ibid.*, p. 404 f.

in 1168 A. D.¹ Merchants of Vatapadraka contributed to the temples at Anahilwad Patan.² Lāṭa was then probably governed by Ambad, son of Uda (Udayan) Mehta, who slew king Mallikarjuna of Konkan in war. During the reign of Bhimadeva II (1178-1242 A. D.) a MS was copied at Dabhoi in 1194 A. D., Vosari, son of Pt. Kesava of Vatapadraka.³ *Vatapadraka*, though originally a hamlet, is now represented as a *pura* (city). On his victorious return from Godhra, minister Tejpal was cordially received by the citizens of Vatapadra, where he halted for some days and renovated the old shrine of Parashvantha.⁴ Vastupal and Tejpal, who built splendid Jain shrines at several places in Gujarat, fortified the town of Dabhoi, and built Jain shrines, a large step-well and a *torana* of white marble there. They also installed statues of king Viradhavala, his queen Jayatalladevi and their own ancestors, especially mother Kumāradevi⁵ at Dabhoi.

Tejpal was appointed minister to Rānā Viradhavala of Dholka in 1220 A. D., while Vastupal was appointed governor of Khambhat (Cambay), which the Rānā had captured from the possession of the Chief of Lāṭa. The chief was Mandalika Sankha of the Chāhamāna family. When he invaded Khambhat, he was vanquished by Vastupal and forced to return to Bharuch. Vastupal seems to have extended the powers of the Rānā over the entire Lāṭa in course of time. Thus the Vadodara district probably lay under the power of the Vaghela (Chaulukyas) of Dholka.

Viradhavala was succeeded by his son Visaladeva in 1238 A. D. According to tradition, he was born at Dabhoi. In 1244 A. D., he succeeded Tribhuvanapala at Anahilwad Patan and became the king of Gujarat. He restored the old temple of Vaidyanatha at Dabhoi in 1255 A. D.⁶ The Sathodara division of the Nagar Brahmins is said to have come into existence during the reign of his father, who invited some learned Brahmanas of Vadnagar to perform a miraculous sacrifice at Dabhoi and granted them six villages near Dabhoi.⁷ The Brahmanas were designated Sathodara after the name of Sathod, the principal place among the six villages. Lāṭa was now governed by Salakhanasimha, a descendant of Minister Udayana. In 1262 A. D., Visaladeva was succeeded by his nephew Arjunadeva. In circa 1264 A. D. Pethad Shah built the shrines of Mahavira and Ādiśvara of Vatapadra.⁸ Arjunadeva was succeeded by his son Sarangadeva in 1275 A. D., and the latter by his nephew Karna in 1296 A. D. During

1. *Vide* Parsati of Virganis Commentary on *Pinḍuniryurti*, (L. B. Gandhi) *ĀTITHASIK LĒKHA SANGRAHA*, Baroda 1963, p. 397]. p. 407 f.
2. *Ibid.*, p. 410 f.
3. *Ibid.*, p. 411 f.
4. *Ibid.*, p. 413.
5. *Ibid.*, p. 414.
6. *Topographia India*, Vol. I, pp. 20 f.
7. The tradition is given by the late Shastri Vrajilal Kalidas in his *Nagar Puraṇita*, which is unpublished.
8. GANDHI L. B., *Ātithasik Lekha Sangraha*, (Baroda, 1963), pp. 416.



A medieval temple sacred to Sun

the reign of Karna, the forces of Sultan Ala-ud-din Khalji of Delhi invaded Gujarat in 1299 A. D. and again in 1304 A. D.¹ and uprooted the power of the Chaulukya (Vaghela) dynasty and established its suzerainty over Gujarat. No mention is available about Vadodara, Dabhoi or other places in this district after the reign of Arjunadeva, but the account of the Khalji invasion indicates that in the mainland of Gujarat the Muslim forces occupied Patan and ran over Asawal, Dholka, Khambhat and Surat.² It implies that the Vadodara district did not fall a prey to the Muslim invasion. However, as a part of the Chaulukya kingdom it, too, soon passed under the sway of the Delhi Sultanat.

The Medieval Period

THE DELHI SULTANATE PHASE

Various records of the early Mussalman Governors (1297-1391 A. D.) speak of "much confusion throughout the province and little in the way of government beyond the exercise of military force". At this time the Hindu Kingdom of Champaner and its fort of Pavagadh were better known than Vadodara. Hence, some idea of the region round Vadodara can be gleaned from the accounts of that kingdom. The Turkish invasion and conquest of Gujarat could break only the upper-strata of Rajput power structure, while the smaller Rajput land-holders on agreeing to become tributaries were not disturbed. For almost a century, therefore, as noted above, this uneasy truce marked the scene in Gujarat. The Delhi Sultans also planted in strategic areas colonies of foreign Muslims to counter balance the possible Rajput upsurge. Such were the Afghans, who grouped as *Amir-e-Sadgan* with their headquarters at Vadodara. When this Nobility of the Hundred felt more than confident in their power they tried to take advantage of their position by a rebellion at Vadodara, during the reign of Muhammad-bin-Tughluq. "In the towns the Turks conciliated the Muslim populace, which mainly was composed of traders, indigenous Muslims like the Ismaili Shiah or foreigners as the Arabs". At the same time the first Muslims Governor of Gujarat, Alap Khan reassured the prosperous trading community of the Hindu Jains in their vocations. This 'cordial understanding between those who wielded political power on one side and commercial on the other, safeguarded the communal life of Gujarat.

It would, therefore, be observed that the most significant factor of the medieval Indian history is the advent of Muslims. Slowly but steadily position of Rajput aristocracy was being taken up by the foreign Muslims, the Turks. Whenever it came to be established, the Turkish power created problems for the existing social order, as a considerable number of the local

1. MAJUMDAR A. K. *Chaulukyas of Gujarat*, (Bombay, 1956), pp. 188 f.

2. *Ibid.*, p. 189.

populace went over to the new faith of Islam. Thus not only foreign political power supplanted the old one, but a new and alien social system was juxtaposed with the old and traditional Indian society. Moreover, the introduction of a new faith of Islam on the Indian soil by its military votaries with a missionary zeal posed problems even for different religions and sects in India. Thus set in a period of stress and strain on all political, social and cultural-planes as the existing cultural pattern was challenged by alien forces. Its effects were prodigious. This conflict gave new dimensions to Indian life.

The seventy years rule of Akbari Turkish Sultans of Delhi, with its expansionist phase in northern India was quickly pushed forward by the Khaljis, with Alā-ud-din usurping the Delhi throne as a result of a tribal duel in October 1296 A. D. Alā-ud-din's accession to power has been regarded by historians as the beginning of Khalji despotism and triumphant expansion with disastrous results for Rajput States. He also successfully carried the banner of Islam beyond the Vindhyas in the south and Gujarat in the west. For the first time, Muslim arms began their victorious march in these areas. Thorough and long lasting subjugation of Gujarat began with the crushing defeat of the Waghela (Chalukya) State and final expulsion of its ruler Karna in two invasions between 1299-1304 A. D. The reported invitation given to Alā-ud-din to come to Gujarat by the Brahman Minister Madhav of Karna and its comparatively easy subjugation were features indicating the deep malaise with which the country was struck. However, the Muslim victory did not mean the curing of the malady. Trouble began soon after Alā-ud-din Khalji's death in the early part of 1316 A. D. The Delhi appointees were often tempted to declare their independence due to the distance that separated Gujarat from the capital, lack of support in Gujarat proper, their own internal wranglings and consequent rebellions.

During the rule of Muhammad-bin-Tughluq, a new class of officers came into lime light. Zia Barni calls it the *Amir-i-Sadgan* or the Group of the Hundred Nobles. For next few years they were an important factor in Gujarat politics. The members of this new class, who now formed a sort of "second tier of land holders in Gujarat planted by the northern rule were overwhelmingly Afaghan." As the nomenclature suggests, each of the *Amir-i-Sadgan* led a corps of 100 horsemen and these numerous Afghans were fast replacing the Turks as a ruling race. From various accounts it seems that they had firmly established themselves in Vadodara and Dabhoi and thus watched over the existing trade routes that linked Khambhat with the rest of the country on one side and the other that linked north Gujarat with the south. In 1344 A. D., they raised the standard of revolt under their leader Qazi Jalal and defeated Muqbil, the Sultan's chief deputy in Gujarat in a decisive battle fought at Dabhoi. From here they proceeded to occupy Khambhat, the key port, first and then spread out to establish control over the central Gujarat plains. From their headquarters at Vadodara, the rebels probably controlled a vast area from Kadi in the north to Bharuch in the

south and from Khambhat in the west to the hills in the east. This rebellion drew Sultan Muhammad-bin-Tughluq to Gujarat in 1345 A. D., and he pitched his tents probably at Pandu Mehtas, some 24 km., from Vadodara. He thought perhaps the hilly sight of this place gave him a strategic point to direct his operations against the rebels. But he soon learnt that the bulk of the rebel forces were busy besieging the city of Bharuch and he hurriedly reached the outskirts of that city where the rebel cause was now doomed.

THE INDEPENDENT GUJARAT SULTANAT

The Afghan rebellion of Vadodara was only a pointer to the fact that given the opportunity "the process of disassociation implicit in the rise of autonomous governorships and quasi-independent aristocracy" could easily set in such a far-flung imperial domain when a strong ruler was not there to keep a watchful eye with the help of well-supported deputies on the spot. After the death of Muhammad-bin-Tughluq in March 1351 A. D., this process was distinctly visible in Gujarat. Within next forty six years, Zafar Khan, who came to Gujarat as a governor in 1391 A. D., ascended the throne as Sultan Mazaffar Shah in the year 1407 A. D. The foundation of an independent Sultanat of Gujarat was thus a turning point in the history of this region. After his accession, the Sultan undertook an ambitious campaign to Malwa which marked the initiation of a long and eventful 'inter-State' relations between Gujarat and Malwa which form an important chapter in the histories of these two medieval States. Their mutual relationship and understanding were regulated to a large degree by their eyes fixed on what was happening in central Gujarat as well as Khandesh. The latter was the weakest State in the triangular State-pattern and the struggle for it was always an important consideration of conflict. The rise of the independent Sultanat, deriving its power and sustenance exclusively from this land posed a serious threat to both Muslim and Rajput enclaves that had not been fully subdued. In this connection, it is interesting to observe that ever since he came to power (1411 A. D.), Ahmad Shah carried on an obstinate conflict with the Sultan of Malwa and it was Champaner that bore the brunt of his zeal, though these blows of the Sultan in the beginning could do little harm to the "resiliency of the Rajput socio-political system." The Rajput control and glory of Champaner loosened and deemed only when a new capital of Ahmadabad was founded, and finally got lost when Mahmud Begada burst forth on Champaner like a storm in 1484 A. D. The misplaced heroism of the Rajput could not save them and many of them were dispossessed of their land and few of them of their women folk. Finally as a class the Rajputs were subjugated, divided, splintered and had to reconcile to the new socio-political order that was emerging under the Muslim pressure as they always fought individually and not unitedly. Occasionally, where a dispossessed Rajput could not bear this pressure, he became an outlaw and a freebooter despoiling the land from which he was expelled.

1411-1442 A. D.

Sultan Ahmad Shah who succeeded Muzaffar Shah at Patan soon faced a rebellion led by his uncle Firuz Khan, who held Vadodara from his father and now, decided to challenge his nephew's claim to the throne. Vadodara, therefore, again became the seat of the first dynastic struggle in the Sultanat of Gujarat. At this stage it may be observed that "the strong-hold of the Sultanat upto this period had been the plains of northern Gujarat with Patan as its headquarters. The control exercised on central and south Gujarat was, therefore, comparatively weaker." Firuz Khan, therefore, assembled his forces at Vadodara without any serious difficulty. History almost repeated. Firuz Khan marched to Nadiad and from there with his allies moved to secure the prize-city of Khambhat. At this crucial moment, dissensions appeared among the insurgent leaders. The internal scuffle resulted in the death of an important rebel leader Jiwandas Khatri. The tables now turned. In the meantime, Bharuch was taken by assault in January, 1411 A. D., by the rebels, where they waited now for succour from Sultan Hoshang Shah of Malwa. On the other side, Ahmad Shah had been carefully feeling his way from Patan to Bharuch where he arrived on 28th of January, 1411 A. D. The position of the rebels, whose troops were slowly deserting them, was pitiable. But here the story changed. Ahmad Shah instead of giving them a battle sent conciliatory letters and in their sorrowful plight these seemed to have the desired effect. The rebellion thus ended in a melodramatic manner.

The suppression of this revolt of the Amirs from Vadodara is considered important from another view point as well. It was revealed that Ahmad Shah had secured the throne by contriving the assassination of his grand father, Muzaffar Shah who had previously named him as an heir-apparent. This nomination then had been approved by the nobles and other important people of the kingdom. Moreover, his enthronement too was accepted by this group. In these circumstances, according to Ahmad Shah, the rebellion was unjustified. In addition, Ahmad Shah urged the rebels not to indulge in violence and give up resistance. He promised them amnesty if they did so. This generous offer coming at a time when the rebels were undecided of their future worked. They surrendered. Even Firuz Khan was forgiven and he now received Navsari in *jagir* for Vadodara which he formerly held.

The revolt of the Vadodara nobles might have broken the most serious opposition to Ahmad Shah as a ruler, but his other internal and external troubles were not over yet. The fizzling out of this revolt was a sore disappointment for Hoshang Shah. The Malwa Sultan had moved down to help the rebels, but he had now to face Ahmad Shah who had hastily turned back from Bharuch to meet him and encamped at Pandu Mewas sending his advanced guard to report on the moves of the Malwa Sultan. From

them he learnt that Hoshang Shah had retreated as hurriedly as he had descended, but not before ravaging a considerable portion of Gujarat territory. The commander of the advanced guard, Imad-ul-mulk, returning from the Malwa border seized those Rajput *zamindars* "who with more haste than prudence, had joined the invader". They were suitably punished when presented before Ahmad Shah.

It was after this action that a change in the capital of Gujarat took place. Twice in Vadodara a standard of rebellion had been raised causing simultaneously enemy movements on the borders of the kingdom. So with a view to exercise greater control in central and south Gujarat and also to keep an eye on the Malwa front and Khandesh, Ahmad Shah shifted his headquarters from Patan and laid the foundation of a new capital, named after him, Ahmadabad in February-March 1411 A. D.

Ahmad Shah was soon confirmed in the proper choice for the site of his new capital and that too at the right time. Very soon he was called upon to deal with another revolt, this time in north Gujarat.

In 1417 A. D., Hoshang Shah again came down in Gujarat at the invitation of Raja Punja of Idar, Raja Tirbangdas of Champaner and Satarsal of Jhalawad. Ahmad Shah rose to meet this formidable challenge and the struggle lasted for more than a year. In it Hoshang Shah was finally defeated in February 1418 A. D. During this campaign Ahmad Shah reduced the massive fort of Champaner in November 1418 A. D. From Champaner, he penetrated deeply in the hilly area to find a favourable spot to erect a fort for future use. Such a spot was located at Sankheda in Vadodara district. Here he built a fort as well as a mosque in March 1419 A. D. From Sankheda, Ahmad Shah reached the village of Mankani which was a border out post and was a well fortified post on the Gujarat-Malwa border in April 1419 A. D. Here he laid the foundation of a small fortress housing a frontier garrison. This village is situated in Sankheda taluka of the Vadodara district.

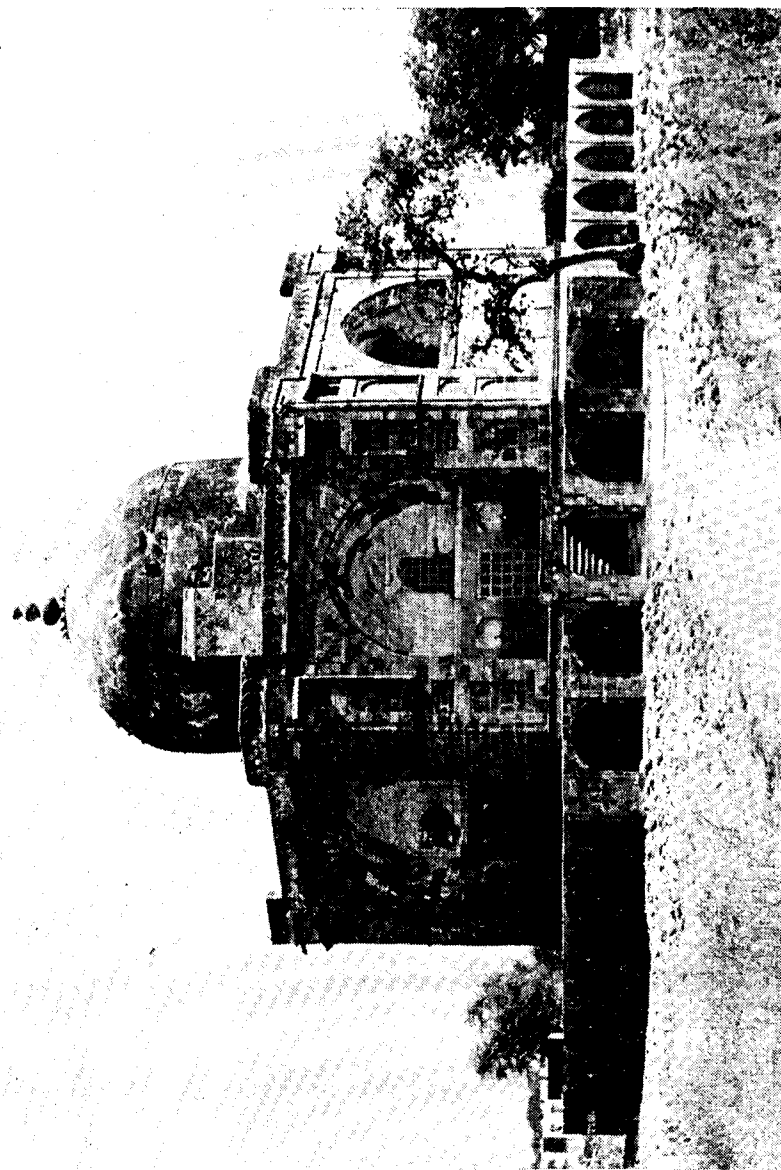
Within less than two years, late in 1421 A. D. the campaign against Malwa reopened with the attack on Champaner where tribute was exacted. Ahmad Shah then proceeded to Sankheda in February 1422 A. D. The Malwa campaign continued till the end of 1422 A. D. when in December Hoshang Shah was again defeated. These Malwa campaigns showed clearly that whether he was advancing to the border or returning from there, Champaner always bore the brunt of the Sultan's zeal. It also throws an interesting side light on the fact that only after repeated blows this petty State lost its independence. Ahmad Shah felt that such a place of strategic importance situated so near the Malwa border had to be under his thumb, while Rajput States like Champaner "could not view but with apprehension, the establishment of a strong Muslim-power nucleus in Gujarat". Thus this

struggle, crippling though it was one of survival on both sides. The Rajput States being weaker of the two sides suffered more but did not lose heart and kept up the struggle throughout Ahmad Shah's rule. None of these States was permanently disabled despite heavy blows.

Ahmad Shah adequately asserted his strength and superceded the old Rajput aristocracy by the new predominantly Muslim. At this stage "a growing leaven of Rajput-Muslim was about to commence". Determined to root out for once and all the semi-independent Rajput chieftains, he grabbed their land and redistributed it. The *wanta* tenure commenced during this period.

One of the social consequences of the Sultan's demand for the Rajput's daughter created a piquant situation for the proud Rajput. If he agreed to give his daughter it linked him indissolubly to the Sultan but in doing so he became an outcaste among his people or suffered degradation. Even with this eventual outcome several of them were ready to profit by the alliance and gain political advantage. Thus a new class of Rajput-Muslims, the *Molesalam Garasias* was born out of such alliances between the Muslim aristocracy and the Rajput aristocracy. On this new social group the Sultans could always rely more than the Rajput, who otherwise remained a disturbing factor in the emerging political system. Sultan Muzaffar Shah I was a converted Rajput himself. Several groups of Hindu Kanbis too were converted to the Pirana sect of Islam in 15th and 16th centuries. They with other such converts like *Maleks*, *Matia*, *Shekhda* and *Momnas* followed both Hindu and Muslim traditions.

It was Ahmad Shah's successor, Mahmud Begada (1459-1513 A. D.) who halted at Vadodara before he finally took the fort of Champaner in 1484 A. D. The occupation of Pavagadh and Junagadh earned him the nickname of 'Begada'. While Mahmud Shah built a new township at Champaner, his son Muzaffar resided at Vadodara and his successor got the name of Vadodara changed to Daultabad. Thus the present city of Vadodara is distinctly of Mussalman origin. As the former Gazetteer identified; this Muslim township which probably did not retain its Muslim name, was built at a little distance from the old town. The possible reason given for this eventuality was that in about 1451 A. D. Vadodara had been seized and plundered by Mahmud Khalji, the Sultan of Malwa. Later visitors of this newly built township confirm the old and new faces of Vadodara. The European traveller Mandelslo who came to this town in 1638 A. D., observed that the Governor of Vadodara had no less than 210 villages under his jurisdiction. Similarly, Ogilvy's Atlas (in 1660-80 A. D.) talked of people moving from the old to the new town. Later, we find that both Champaner and Vadodara were included as two districts in the vast kingdom of Gujarat of Sultan Bahadur Shah (1526-1536 A. D.). After his death his successors retained only nominal power, while the kingdom was divided between the



Hajira of Outb-ud-din built by Akbar, Mughal Emperor, during 1553-1605 A. D.

CHAPTER II HISTORY

parties of a few great nobles. It can be said that with the death of Bahadur Shah the independent Gujarat Sultanat too ended.

During the latter part of the 15th and first quarter of the 16th centuries the power of the Ahmadabad kings was at its height. Their dominions included 25 divisions or *sarkars* of which Champaner and Vadodara with seven others were included in the central plains. The famed Portuguese travellers Afonso De Albuquerque coming to Gujarat between 1511 and 1514 A. D., found the 'capital' Champaner "great city in a very fertile country of abundant provisions, with many cows, sheep and goats and plenty of fruit, so that it was full of all things". Almost 100 years later another European traveller, Terry in 1615 A. D., counts Vadodara one of the fair cities with Khambhat, Bharuch and Surat. Bahadur Shah (1526-36 A. D.) in his zeal to increase his conquests ruined his finances. By introducing the system of farming of the district revenues he lost the sympathies of the people. Prior to him Ahmad Shah in his intolerance had imposed the iniquitous *Jiziyah* to the great annoyance of the Hindus. Both these features were removed when Gujarat was conquered by Akbar in 1573 A. D. Taking advantage of dissensions among the crafty nobles, the Mughal Emperor Akbar defeated the last Sultan of Gujarat, Muzaffar Shah III and annexed Gujarat in his empire. In the last 37 years of continuous strife, Vadodara and surrounding regions appear to have been first under a Habshi Sardar, Jhujhar Khan and later in possession of the Mirzas of Khurasan, who after quarreling with the Mughal emperor Akbar, entered Gujarat, took advantage of internal wranglings and at the opportune moment, took possession of Bharuch, Vadodara and Champaner. Peace returned to the land only after a few years of annexation to the Mughal domain.

THE MUGHAL PHASE

Akbar moved from Ahmadabad to Khambhat on his victorious march, Vadodara at this time was held by Ibrahim Mirza, while Shah Mirza was at Champaner. "On leaving Cambay to expel the Mirzas, Akbar appointed Mirza Aziz Kokaltash his first viceroy of Gujarat". Chasing Ibrahim Mirza out of Vadodara, Akbar could engage him at Thasra on the right bank of the river Mahi and in a bloody conflict routed him. Akbar then completed the conquest of Gujarat before returning to Agra. He also rewarded his faithful generals by grants of land. In this distribution Vadodara was given to Nawab Aurang Khan. Apart from areas directly held by the Mughal viceroy, probably north of the river Mahi, Gujarat was parcelled out among number of grantees. Their tributes were fixed, according to terms dictated to them at the time of their conquest or grant, and thus bore no relation to their financial resources. Again they were neither regularly collected nor willingly paid. Hence, force or military display had to be resorted to and only then payments were made. Thus developed a system called *Mulukgiri*, later adopted and modified by the Marathas.

With Gujarat becoming the part of Akbar's domain, a new arrangement was made. Ten districts were now directly administered by imperial officers. Vadodara being one and under Imad-ul-mulk and party and with four sub-divisions and Champaner with thirteen sub-divisions. It is difficult to mark out the exact limits of these divisions. Akbar's Revenue Minister Raja Todarmal made a survey of the land, but his operations were confined to a small portion of the whole area of Gujarat. It is said that "besides the six tributary districts which were unaffected by the measure, Godhra in the east, the western peninsula and a large portion of the central strip of directly governed lands were excluded, so that of the 184 sub-divisions only 64 were surveyed". It may be surmised, therefore, that the Vadodara district may not have been covered by the great Revenue Minister. In the directly governed district, therefore, the old method of determining the government share of the produce either by selecting a portion of the field while the crop was still standing, or by dividing the grain heap at the harvest time was continued.

Despite the strong rule of the Mughal emperors, the descendants of the Ahmadabad kings had not given up hopes of regaining their patrimony and continued the struggle on the length and breadth of the whole of Gujarat. Over a period, number of Ahmadabad Sultans had married among the Rajputs and considered themselves as Gujaratis. They could, therefore, easily command sympathy in Gujarat. Thus they gave very tough time to the Mughal governors, till the beginning of the 17th century.

Taking advantage of these distracted affairs in Gujarat, in 1609 A. D., Malik Ambar, the Nizam's governor of Daulatabad, at the head of a big army, pushed into Gujarat, plundered Surat and Vadodara districts and retired with a rich booty. Later, Shivaji and his Marathas were to follow his foot-steps and loot many parts of Gujarat before finally settling down to rule and administer. To prevent such raids in future, the Mughal governor posted a body of 25,000 men on the Deccan border in which the Chief of Mohan (former capital of Chhota Udepur State, now part of the Vadodara district), contributed his mite. At about this time only the English and the Dutch were allowed to establish their factories at Surat, an event the deep hidden implication of which was not clear then.

Within next 55 years disturbances continued unabated in Gujarat and the Maratha raids and pillaging of the country by the Kolis became somewhat routine affairs. The Maratha raids began with their leader Shivaji sacking Surat first in 1664 A. D., then in 1666 A. D., and finally in 1670 A. D.. Encouraged by the rich booty, the Marathas became bolder still and sent their fleet in the gulf plundering Bharuch and Khambhat in 1671 A. D. During the next four years crossing the river Narmada, their armies plundered at leisure the Bharuch district. By the first decade of the 18th century, the plundering forays increased in their intensity. The Kolis too had their share in it. About

1705 A. D., seeing the disorganised State of Gujarat, the Kolis plundered Vadodara for two days. However, much more serious threat to the Mughal authority was now to come.

THE RISE OF MARATHA POWER

The 18th century saw the steady decline in the Mughal authority. Their viceroys not only now failed to keep their nobles in check, but could not collect their tribute from the more powerful feudatories. The petty Rajput *Jagirdars*, the Koli and Bhil Sardars, freed from the central control, destroyed the military posts and took possession of the State share of the village lands and levied taxes from their more peaceful neighbours. The great landholders made the Mughal viceroy virtually their prisoner. The confusion thus created, was more confounded as in this period the burden of the Maratha tribute grew heavier as time passed. There is a lot of truth in the observation of the *Bombay Gazetteer* that, "from the first to the last Maratha interest in Gujarat were, except with one or two special junctures, simply pecuniary ones." The internal feuds between the Maratha and the Brahman communities at the Poona Court were to add to the difficulties of Gujarat, when Maratha Sardars like Dabhade, Gaekwad and Kadam Bande pitched their tents in Gujarat against the powerful Brahman minister, the Peshwa of the Chhatrapati. The riot in Gujarat, therefore, was grinded between fixed shares of *Chauth* and *Sardeshmukhi* and ever-varying extras, the officer-in-charge could manage to extort. These extortions were made from the commercial classes down to the agriculturists. The latter class was also made to support a large cumbrous army for a long period. Khanderao Dabhade, the trusted Maratha commander of the Chhatrapati made deep incursions as far as Sorath to plunder. The road from Surat to Burhanpur was completely under his control and none could pass over it without his permission. He was ably aided in this task by his lieutenant Damaji Gaekwad, with whose family, the fortunes of the Vadodara district were to be closely linked in times to come. In 1716 A. D., Dabhade was made, by the Chhatrapati, his Senapati, and around this time only, Haider Kuli Khan was appointed by the Mughal Governor, the military commandant of Vadodara with several other areas of present Rajnpla and Kheda regions. Both these appointments were to prove crucial in shaping the course of history of Gujarat. In 1720 A. D., Dabhade was authorised to levy tribute in Gujarat and in the next year Damaji was honoured as Shamsheer Bahadur for his services. This title was proudly held by the later Gaekwads of Vadodara.

The weak Dabhades were quickly replaced by their more daring and ingenious Mutaliks or assistants, the Gaekwads. Shamsheer Bahadur Damaji died soon after his elevation in 1721 A. D. only, and was succeeded by his nephew Pilajirao Gaekwad, (1721-1732 A. D.), who made Songadh on the border of Gujarat, and Khandesh his headquarters. It was Pilaji, who, thereafter, made persistent efforts to gain a permanent footing in Gujarat. He and

his successors penetrated in the hilly country of Raipinla, that overlooked the future Vadodara district borders. Pilaji was the founder of the fortunes of the family and thus, Songadh became the cradle of the Gaekwad house.

With the establishment of the Gaekwad's authority, a somewhat regular system of administration was introduced. The Treaty of 1729 A. D., required that, as few Maratha officers would be employed as were necessary to collect the Dabhade's share of the revenue. The Mughal viceroy had expected from them restraints while doing their work. However, the viceroy was not to have any chance to complaint, as internal struggles of the Muslim chiefs made it easy for the Marathas to increase their minimum quota and the establishment grew larger. At this time when the Gaekwad was dreaming of a kingdom in Gujarat, others too were looking for a profitable future. "The great Gujarat houses of the Babis and Jhaloris as well as the newly arrived Momin Khan turned their thoughts to independence." Momin Khan had come out as the Mughal governor of Surat in 1715 A. D. and Petlad, Dholka, Vadodara and Nadiad were placed under his deputies. In 1723 A. D., Momin Khan's charge devolved upon Rustam Kuli Khan and Vadodara was under his deputy, Imam Meddi. The Imam was not very popular and he soon alienated the local feelings. Soon an influential section of the powerful agriculturist class, that of the Patidars, led by Dala Desai of Padra and his associates of Chhani and Bhayali in the Vadodara district, with Vaghji Patel of Virsad, Daji Patel of Vaso in the present Kheda district and Sureshwar Desai of Vadodara proper, decided to "ruin the Mussalmans by calling in the Gaekwads." It is said that they secretly met Pilaji, where a plan of invasion was chalked out and accordingly in 1724 A. D., Pilaji crossed the Narmada, arriving at Karnali, on the eastern border of the district, where he was joined by some of his Gujarati associates led by Dala Desai. By his good knowledge of the regional topography, Dala Desai helped Pilaji to move up as far as the river Mahi. But here, other complications intervened in fulfilling the plan.

In 1724 A. D., Udaji Pawar and later, in 1734 A. D., Anandrao Pawar, another band of the Maratha Sardars were authorised to collect tribute from Gujarat. At the same time, another Maratha officer, Kantaji Kadam Bande, who had been sent by Raja Shahu to Malwa now entered Gujarat from the north-east and ravaged Dahod on the frontier. He also began levying fixed contributions. Herebefore, occasional demands were often made. 1723 A. D., was the first year in which the Marathas began imposing a regular tribute on Gujarat. This was the time when Rustam Kuli Khan had taken over from Momin Khan. Thus, now, two Maratha freebooters were added in the power struggle which was already being waged by the representatives of Delhi, the Nizam and the claimants of the Ahmadabad kings. By now the Nizam's *Jagir* in Gujarat, included Dholka, Bharuch, Jambusar, Makhbulabad and Valsad. He had thus become a force to reckon with in Gujarat. His dream of adding the rest of Gujarat to his possessions now seemed fast disappearing. His representative Hamid Khan met the two Maratha Sardars when he came

to know that the Delhi Emperor had instructed his valiant Sardar Shujait Khan to oppose the Nizam's bid. Hamid Khan, Pilaji and Kantaji arrived at a compromise. It was agreed that the districts, north of the river Mahi, should go to Kantaji, and those in the south, viz., Vadodara, Champaner, Nandod, Bharuch and Surat should go to Pilaji. When this formula was being worked out, Senapati Trimbakrao Dabhade, son of the late Khanderao, established himself at Dabhoi. He advanced from here to Khambhat, where, in a quarrel culminating in bloodshed, he was wounded.

The above arrangement did not last for long. In 1725 A. D., only, Sarbuland Khan, the imperial representative defeated the combined forces of Pilaji, Kantaji and Hamid Khan in two engagements at Sojitra and Kapadvanj, now in Kheda district. Reverses forced the Marathas to fly. In this process, Dabhoi changed hands as Pawar, the protege of the Peshwa, now occupied it, while Hasan-ud-din was appointed governor of Vadodara. Bharuch, Jambusar and Makhbulabad by the imperial representative. Both Pilaji and the Nizam thus found themselves displaced. However, this decision too was destined to be revoked within next three years, when in 1728 A. D., Kantaji and Pilaji came to Vadodara and Dabhoi and occupied them. It seems, Vadodara and Dabhoi remained in Pilaji's hand while in 1729 A. D., Krishnaji, foster son of Kantaji took Champaner. The Maratha Sardars thus fixed up their posts in the centre of Gujarat.

With Peshwa Bajirao coming to power in Poona, attitudes changed. While the Peshwa viewed gravely the independent postures assumed by the Maratha Sardars, the latter showed their contempt, when one of their equals tried to look superior. The alignment now changed. Bajirao now concerted his action with the new Mughal viceroy Raja Abhay Singh to oppose Pilaji and if possible turn him out of Vadodara. Here began the first of the three struggles between the Peshwa and the Gaekwad. The battle which took place on 1st April, 1731 A. D., at Bhilapur, near Vadodara resulted in a complete victory for the Peshwa, when the confederate chiefs were duly humbled, though Bajirao did not deem it politic utterly to crush the Maratha sardars. On the contrary, Pilaji was now decorated with the additional title of Sena Khas Khel, while he was to remain Mutalik to the young Yashwantrao Dabhade, whose father had been killed in the Bhilapur battle.

Despite the defeat at the hands of the Peshwa, Pilaji emerged more powerful in central Gujarat. As the Mutalik of the Dabhade, as the master of the fort of Songadh and as the ally of the Bhils and Kolis, he became a thorn in the flesh of viceroy Abhay Singh. His continual occupation of the town of Vadodara and of the strong fortress of Dabhoi had made Pilaji still more formidable. It was not easy to defeat him in the battlefield, and what he could not do openly, he did secretly. He got him murdered in 1732 A. D., at Dakor, a centre of pilgrimage in the present Kheda district. The followers of Pilaji killed the assassin, withdrew across the river Mahi and cremated

him at Savli. They then evacuated the district of Vadodara and retired to Dabhoi. The taluka town of Savli still exhibits a memorial to Pilaji and is a revered place for the Vadodara Gaekwads. Pilaji, freebooter left behind an fulfilled dream for his son Damaji who was to carve out a kingdom for himself, thus completing the unfinished work of his father. For the moment, following his advantage Abhay Singh marched rapidly for Vadodara and took both the fort and the town. They were now made over to the care of Sher Khan Babi. Abhay Singh had tried in vain to recapture Dabhoi at this time, and with the monsoon approaching fast, returned to Ahmadabad.

Damaji at Dabhoi waited for an opportunity and prepared to avenge the disgrace. His father's old friend, the Desai of Padra helped him to stir up effectively the Bhils and Kolis of Gujarat, creating troubles for the Mughal administrators. In the mean time the Gaekwad family at Songadh in order to help their brethren, sent a strong force and so did Umabai, the widow of the deceased Senapati Trimbakrao Dabhade. These energetic measures had their effect. In 1734 A. D., Sher Khan Babi the governor of Vadodara, had gone to look up his estate at Balasinor, leaving Muhammad Sarbaz in command at Vadodara. Taking advantage of the Babi's absence at Vadodara, Mahadaji Gaekwad, brother of Pilaji, who then held Jambusar, marched with a strong force to recapture Vadodara. On hearing of the attack on Vadodara, Sher Khan rushed but only to be defeated and Vadodara fell in the hands of the Gaekwads never to be lost again. Within next 13 years Damaji steadily grew in power both in Gujarat and Kathiawad. In 1747 A. D., he came to be nominated the deputy of the Marathas in Gujarat. While Damaji strode between Poona and Kathiawad, the district of Vadodara was held by his brother Khanderao.

After the death of Peshwa Bajirao in 1740 A. D., the Brahman party got an upper hand in Poona politics with which Damaji and other nobles were unhappy. Three years later his chosen ally and friend, the Mughal Viceroy Momin Khan died (1743 A. D.) and with that Damaji's difficulties in Gujarat increased, though his hold over Gujarat was strong enough to arouse suspicion at Poona. It was in this atmosphere of mutual distrust, that the second contest between the Gaekwads of Vadodara and the Peshwa got in the offing. Damaji had always been anxious to throw his weight on the side of any party opposed to the Peshwa. In 1749 A. D., when Raja Shahu died in suspicious circumstances, the old contest between the Maratha and the Brahman was revived. In 1750 A. D., Damaji was called to Poona to represent the weak Dabhade Yashwantrao and he refused to oblige. He thus faced a formidable coalition that placed the Peshwa at the head of the Maratha confederacy. In 1751 A. D., he was not only defeated at Nimb but taken prisoner alongwith his *Karbhari* Ramchandra Yashwant. Finally he was forced to accept what came to be known as the Partition Treaty of 1752-53 A. D., that divided the shares of the Peshwa

and the Gaekwad in Gujarat. The Marathas were now in a position to decide the fate of Gujarat at the cost of the fast decreasing authority of the Mughal representatives.

The Maratha Domination

Monetarily, Gujarat was divided almost equally between the two partners. In a brief note the Peshwa's half share was given so that the whole partition could be well understood. For the area between the two rivers Narmada and Mahi, that included a few talukas of the present Vadodara district like Dabhoi, Savli and Bahadarpur alongwith others, the share fixed was Rs. 7,15,000. In the *Amli Mahals* or in the country which had been fully reduced, the Gaekwad's share in the Vadodara district was stated to be :

	Rs.
Vadodara	5,00,000
Vaghodia	25,000
Sankheda	25,000
	5,50,000

In addition to this, the Gaekwad obtained for the maintenance of his family districts worth Rs. 3,00,500 in the Surat *Atthavisi* which then included two of the present talukas of Vadodara district, viz., Sinor and Tilakwada. Their revenues were stated to be Rs. 85,000 and Rs. 5,000 respectively. On the whole in this Partition Treaty, the Gaekwads came off better as they knew the country of Gujarat well and moreover, they were helped in choosing by the *Desais* of Gujarat who were still partial to the Gaekwad's cause. When the Peshwa realised this, he tried to insist that his share was not in any way equal to that of the Gaekwad, and further laid his claims on a bigger scale. This the Gaekwad naturally resisted. When Peshwa Madhavrao mounted the pressure on the Gaekwad on this issue demanding fairplay, tension increased on either side. A conflict for third time ensued between the two. The Peshwa first defeated his own uncle, Raghunathrao or Raghoba who was helped by Govindrao Gaekwad, Damaji's son and took both of them prisoners after an engagement at Dhodap. The resulting bargain was harder for the Gaekwad. The town of Dabhoi could be saved for the Gaekwad only on the plea of *Darbar Khurach* or expenses. Soon after the battle of Dhodap, Damaji died in 1768 A. D., at Patan which had remained as his headquarters for long. This was a signal for an internecine war. The quarrel for the succession was also the first step towards breaking up and localising the Gaekwadi power in Gujarat.

One of the claimants to the *Gadi* was Sayajirao, who had "entrusted his interests to Fatehsingh, a man of considerable ability", and who was

his step-brother. Fatehsingh was shrewd, active and intriguing and wished to usurp power in his brother's name who was a weak-willed person, with vacillating character. The other claimant was Govindrao, the eldest son of Damaji, who was then in captivity at Poona. The Peshwa wished to profit utmost from this internal family wrangle. At the time of his father's death Fatehsingh was in Gujarat and he promptly secured Vadodara, a town he never subsequently abandoned. He also succeeded in securing the right of Sayajirao to succeed Damaji on terms offered by the Peshwa. However, he agreed to give two lakhs of rupees a year and a *jagir* of Padra to Govindrao.

Even with this heavy price, Fatehsingh did not feel secured and frequently sought support of the Peshwa against "rival Gaekwads, his cousins the *Jagirdars* of Kadi, importunate creditors and disaffected subjects." The additional financial burden that he had incurred in satisfying the Peshwa's demands had adversely hit the tax-paying Gujarati *ryot*. The Peshwa too secretly delighted at the growing discomfiture of the Gaekwads. Unable to secure any aid from Poona where he had gone in 1772 A. D., he came to suspect the Peshwa's *bonafides* and on his return journey made overtures to the British at Surat seeking an alliance with them. He did not succeed then, but eight years later, the terms he had offered then became the basis of future negotiations with them. On the other side, Govindrao too approached the British for help on much more attractive terms than Fatehsingh's. In the meantime Fatehsingh and Govindrao were left to fight out their quarrel by themselves in 1773 A. D.

The civil war among the Gaekwads, however, soon got entangled in the power struggle that raged in Poona after Peshwa Madhavrao's death in November, 1772 A. D. Raghoba who tried to seize power was opposed by the coalition of ministers headed by Nana Fadanvis in favour of the posthumous son of the late Peshwa. While strife went on, Raghoba quickly recognised his old pal Govindrao as *Sena Khas Khel* against Sayajirao. Thereafter Govindrao came hurriedly to Gujarat to make good his claims. Now all the parties involved in the struggle for power at Poona and Vadodara sought the British help, which was indicative of a new rising star on the horizon. The British took sometime before they chose their permanent ally hereafter, the Gaekwad of Vadodara. In the Poona contest the British made an error of judgment first in backing up Raghoba, but soon left on his own. Out of these vacillations in the British attitude for some period, a good deal of embarrassment was caused to all concerned including themselves.

In early 1775 A. D., when Raghoba reached Vadodara he found Govindrao and his uncle the *Jagirdar* of Kadi, besieging Fatehsingh in Vadodara. While he was on his way to Vadodara, Raghoba had got in touch with the British, who dazzled with the hope of acquiring Bassein, Salsette and the districts

round Surat, reached an understanding with him. Accordingly they sent a force in February, 1775 A. D., under Col. Keating to Surat. On 6th March, 1775 A. D., the British agent at Surat signed a treaty on the basis of that understanding. In the mean time an army sent from Poona to chase Raghoba reached Vadodara on the 17th March and not only forced him and Govindrao to raise the siege of Vadodara but also to beat a hasty retreat. For a time Col. Keating saved their honour, though Govindrao faced a tough time in pacifying his troops which mutinied demanding payment of their arrears. The rains in June prevented any major action on any side even Col. Keating took shelter at Dabhoi, while the left over of Govindrao's troops camped at Bhilapur, half way between Vadodara and Dabhoi, but not before exacting a levy of three lakhs of rupees from Dabhoi. From Bhilapur Raghoba began negotiating with Fatehsingh in Vadodara through the mediation of Col. Keating. "Fatehsingh was all the more ready to come to definite terms of agreement, as he knew that Govindrao was on the watch to recover Baroda."

All this time Fatehsingh, shrewd as he was, continued to be on civil terms with the British and skillfully worked to win them over to his side. This diplomacy paid its dividend and in July, 1775 A. D., both the Colonel and Raghoba threw over board their erstwhile ally Govindrao and opened communications with the actual possessor of the city. On 8th July, 1775 A. D., the Colonel met Fatehsingh on the river Dhadhar near Vadodara and an understanding was reached between them. As the *Bombay Gazetteer* said, "it is not certain what the terms proposed and agreed to really were," but a document of the Bombay Government of 1802 A. D., speaks of giving the English for their efforts at mediation, a sub-division of Koral on the river Narmada in the present Karjan taluka, in perpetuity. However, before any further progress could be made in these negotiations, the Supreme Government in Calcutta disapproved of the Surat Treaty signed with Raghoba by the Bombay Government and thus abandoned Raghoba to his own fate. The Gaekwad too was left free to settle his score with his adversaries. "Desultory skirmishing was consequently resumed by brothers and their little armies of four to five thousand men marched and counter marched in the neighbourhood of Baroda." It seems during this period, in the course of negotiations that Fatehsingh continued with Poona Government, the question of Savli taluka, retained by the Gaekwad as *Darbar Kharach* continued to be the bone of contention.

Late in 1778 A. D. the British suspected the Poona Government intriguing with the French and a second war between the Peshwa and the British broke out in March, 1779 A. D. This time Fatehsingh, by the pressure of events and with great reluctance, stood on the side of the British. The Bombay Government had proposed the Supreme Government at Calcutta an alliance with Fatehsingh, engagement to free him from dependence on the Poona Government and to reconcile the disputants within the Gaekwad family itself.

The Governor General approved the proposed alliance with Fatehsingh as head of Vadodara State but carefully advised to stay away from their family disputes. This war saw the quick campaign of Col. Goddard. Beginning on 15th December, 1779 A. D., he first advanced on Dabhoi, till then held by 2,000 of the Peshwa's troops and then moved to Vadodara. On 20th January, 1780 A. D., Dabhoi was evacuated by the Marathas and occupied by Col. Goddard. Fatehsingh now saw his advantages of the alliance with the English and was prepared to sign a defensive and offensive alliance with them. The Treaty of Kundhela a place between Dabhoi and Vadodara, was thus signed on 26th January, 1780 A. D. This treaty was the beginning of a process which made the Gaekwads of Vadodara independent of Poona Government and the taking over by the British the Peshwa's share in Gujarat. By the Article V of the treaty, "a new settlement of Gujarat was to take place for the mutual benefit." Among other things the *Bombay Gazetteer* mentions that "in return for the support the English were to give him in withholding tribute from the Peshwa, Fatehsingh ceded Sinor on the Narmada....."

After this treaty, the district of Vadodara was to witness some sharp battles, between the Peshwa's allies Sindhia and Holker in February-April, 1780 A. D., in which the British continued to have an upper hand. When Goddard had left to besiege Bassein, he left behind Major James Forbes the celebrated author of "Oriental Memoirs," in charge of the Gujarat army. He had posted detachments of troops at Ahmadabad, Surat, Bharuch, Sinor and Dabhoi. When Sindhia made demonstrations before Sinor and Dabhoi it was successfully defended by Forbes. During his stay in the Vadodara district, Forbes put the fortifications and public buildings at Dabhoi in the best possible repairs. He lived there for next three years and almost fell in love with the land and its people. In his *Oriental Memoirs* he gave vent to his warm feelings. Over and above Dabhoi, James Forbes left some good descriptions of Sinor, Bahadarpur and Chandod as well. He left it in 1783 A. D. when Bharuch, Dabhoi, Sinor and other regions were restored to the Marathas.

Throughout this period, Fatehsingh did not move out of the Vadodara city and was content with guarding his "capital". However, it appears that the British representatives from 1780 A. D., onwards frequented Vadodara often to keep in touch with what was happening there.

The Regent Fatehsingh since 1806 A. D., never went out of the city of Vadodara and one could see from his time the city becoming the centre of hectic activities on almost all fronts. The effort to streamline the administration was made under the direction of the British Resident Col. Walker. The assistance of the two great bankers (Potedars) of Vadodara was also obtained to strengthen the administration. Samal Bhakti the *Nagarsheth* of Vadodara was made *Potedar*. The Potedari system was of an old standing and the good Colonel did not invent it, but he did perpetuate it out of necessity. Under it, the State wishing to obtain ready money, issued a money order on an

accredited State Banker. The State did not deposit any money with this Banker, but it granted him a *varat* or a letter of credit on some *Ijardar* or farmer of the State revenues in one of the mahals, who honoured the *varat* at the time of paying in the rent of his farm. At the fag end of that year when the British tried to dissociate the Poona Government from the Nizam and Hyder Ali of Mysore, by promising them to restore Ahmadabad hitherto in possession with Fatehsingh by the Treaty of Kundhela, Fatehsingh got suspicious of the British intentions. On the other side, the British too at one stage in August, 1781 A. D., distrusted Fatehsingh's faith and this prompted a meeting with Goddard on the river Dhadhar. Goddard inquired what was there in Fatehsingh's mind in disgracing his pro-British minister, Govindrao Pandit. This meeting removed, after some frank exchanges their mutual misunderstandings and restored their friendly relations.

In short, the two wars between the Peshwa and the British, (1779-1782 A. D.), and subsequent treaties left the Gaekwad of Vadodara in his old position of the most important regional power but greatly impoverished. He had lost for good his share of Bharuch to Sindhia. After the Treaty of Salbai in May 1782 A. D. Raghoba died and thus was removed a thorn from the flesh of the Poona Government. For the next six years, Gujarat was left in peace under the administration of the Gaekwads of Vadodara.

Quick deaths of Fatehsingh in 1789 A. D., of his ward Sayajirao in 1792 A. D., and of brother Manajirao, who had for some time worked as the Mutalik, in 1793 A. D., in less than four years time finally made way for Govindrao's restoration in 1793 A. D. He paid a heavy *nazar* to Poona for this position and had been even forced to give up Savli to the Peshwa. After all this, Govindrao still had no peace. His illegitimate son Kanhojirao had escaped from his confinement and fled to the hills. Where he incited the Bhils and Kolis and ravaged Sankheda and Bahadarpur areas and in the company of the *Jagirdar* of Kadi made the position of Govindrao vulnerable. The activities of both these rebels were destined to create a lot of confusion and disorder for next seven years when Govindrao was in power at Vadodara.

Govindrao died on the 19th September, 1800 A. D., and again history repeated itself. "As had happened at the death of Darnaji, so again now, the heir Anandrao was all but an imbecile and quite incapable of managing his affairs." The struggle for power was the golden opportunity of the rebels. The question was who should act as Regent for the weak-willed son of Govindrao and rival claims were put forth. Again there were all the distractions of a civil war. For some time Kanhoji could secure the ascendancy in the counsels of his weak minded elder brother, but his arrogant conduct excited the Arab guards against him and he was thrown into their confinement. While his mother Gajrabai tried to secure aid of the English for his release, the administration of the Gaekwad passed into the hands of Raoji and Babaji, two brothers who had accompanied Govindrao from Poona. While "Raoji

took charge of civil work, Babaji undertook the military duties, which at that time consisted in great measure in collecting the revenue by show of force," that is going round on *Mulukgiri* expeditions. In pampering the Arab mercenaries with the help of bankers to the Gaekwad family, the two brothers also felt like playing with fire. They too now turned to the English. Thus the English entered on the Vadodara scene in a big way in the beginning of the 19th century. As both the sides knew well that the English help could tilt the balance in their favour they outbid each other in offering generous terms at the cost of the 'Baroda tax-payer'. The Peshwa on his part intervened whenever convenient. The next two years of give and take on all sides left a "webster of treaties and assignments, of alliances and counter-alliances, of shares and tributes and mortgages."

Out of this state of affairs, three main facts emerged very clearly. The Vadodara State had now taken a definite shape and the Gaekwad was recognised as its ruler; secondly, it appeared that the Poona court was fast losing its hold not only in Gujarat but also everywhere else; and finally, the Treaty of Bassein in 1802 A. D., gave proof, if any proof was required, that the English were becoming rapidly a paramount power both at Poona and Vadodara. In fact, the English now replaced the Peshwa as an arbiter in Gujarat. As a visible sign of their superior power now and paramount power later, Major (later Colonel) Alexander Walker was appointed Resident at the Vadodara court and "for many years the Resident became the virtual ruler of the State."

Once in Vadodara, in 1802 A. D., the Resident quickly sensed the immediate danger facing the authorities. He viewed with some alarm the signs of growing insubordination among the *Jamadars* of the Arab mercenaries. Their position was a strong one as they held person of the Maharaja Anandrao and were in occupation of the four gates of the Vadodara city. To add to this when the contending parties of the Gaekwad family took sides with them during the month of November of that year, there was every fear that the streets of Vadodara city would become the scene of bloody struggle between the Arab factions. Finally Walker used force and with minimum loss of life, ejected the turbulent Arabs out of the city wall in the month of December, subdued *Jagirdar* of Sankheda, Ganpatrao Gaekwad, a descendent of Pilajirao, who had long resisted the arms of the Vadodara ruler. He had joined hands with his kinsman, Malharrao, *Jagirdar* of Kadi in revolt against Anandrao. A small force was sent to Sankheda when the fort was surrendered on 7th July.

Similarly, Rani Takhtabai's conspiracies and minister Sitaram's intrigues several times threatened Vadodara with the horrors of a revolution during Anandrao's reign. The mutual quarrels of the scions of the Gaekwad family had filled the city of Vadodara particularly with troops and people with shady character.

The ousting of the Arabs did not mean the end of that matter there. The Arabs had been paid all their arrears and were permitted to leave Vadodara freely on condition that they shall not remain in the State a day longer than was necessary. These arrears amounted to about Rs. 17.50 lakhs. Though a few left the State, many of them joined Kanhoji. There he had raised an army of the Kolis and this was now strengthened by some 200 Arabs and 300 Sindhis. Both Major Holmes and minister Sitaram jointly took position against this large body of Kanhoji on 11th January, 1803 A. D. An action in Vajiria sent Kanhoji fleeing in the hills behind. A few weeks later, he reappeared on 6th February at Parthampura, near Savli and was again routed leaving behind his men and treasure. In this action, the *Sankheda Jagirdar* who had sided with Kanhoji was wounded. Still, one Arab *Jamadar* Abud the Lame, hovered on Vadodara district alongwith Kanhoji. It was on 2nd March that Major Holmes finally defeated Kanhoji and his *mehvasi* force at the Aloras, near Chopda and drove him out of Koral with great loss.

The refractory Gaekwad Princes could be put down only after a show of force. Malharrao surrendered and his principality of Kadi was annexed to the Gaekwad's dominions. Within six months Walker made Anandrao's position safe by putting down all sorts of disturbances. This happy result was brought by the Gaekwad at a price. An agreement was duly signed on the 6th June, 1802 A. D., granting to the Company in perpetuity the districts of Surat Atthavisi for their expenses in the recent clash of arms. The Gaekwad felt so much indebted to the timely British assistance that he placed himself, his State and his policy under them.

Unfortunately these troubles rocked Vadodara, when its finances had been seriously impaired by the payment of some 79 lakhs of rupees to the Peshwa on various counts. These factional fights helped only the British who within next 15 years made their position in Gujarat supreme. They inherited the position of the Peshwa here. Walker tried to cement Gaekwad's relationship on all sides. All the understandings were now pooled together and on 21st April, 1805, the Definitive Treaty was signed between the British and the Gaekwad. It provided for the maintenance of a disciplined force for the safety of the Gaekwadi raj. Walker gave the British guarantee and procured funds from the local bankers in addition to loans which he managed to get from the Bombay Government to pay the arrears of the Arab *sibandi*. When Walker put an end to *mulukgiri* expeditions peace was restored throughout Gujarat, particularly in the Vadodara State. The latter, therefore, was "ever grateful to this Englishman who had done so much to compose its differences and had worked towards the goal of peace, prosperity and contentment within its borders." Anandrao's brother Fatehsinghrao II became the Regent in 1806 with number of shackles on his freedom imposed by the English and by the time he died in 1818 A. D., more were added as an inevitable price for protection from internal as well as external danger. To him Walker and the power he represented were anathema.

Under the Definitive Treaty, the Gaekwad had to cede Kheda, Choryasi and Chikhli *paraganas*. With the surrender of the Ahmadabad farm later, the Vadodara State Map was further changed. (For details see the Annexure-I). In 1812 A. D., Chhota Udepur, a taluka town of the present Vadodara district then a tributary to the Holker was to pay the *Ghasdana* or tribute to the Gaekwad through the British Agency. In 1817 A. D., the Poona Treaty between the English and the Peshwa, necessitated a readjustment of the agreements with the Gaekwad. Two supplements were added in 1817 and 1818 A. D. In the final exchange of territories, the Gaekwad got Dabhoi, Bahadarpur and Savli valuing Rs. 2,07,918 ; Rs. 14,377 and Rs. 75,333 respectively. The surrender took place between 30th November and 1st December, 1817. In 1825 A. D., The *Kalambandis* or agreements took the Vadodara district further towards its future set up. The Rewa-kantha *kalambandi* of this year fixed up tributes of Sinor, Sankheda, Tilakwada and Savli mahals. The British Political Agent was further empowered to mediate between the Gaekwad and his *mehvasi* subjects in Sinor, Mandwa, Nandera and half-Chandod in Rewa Kantha ; Nasvadi, Agar and Sisan in Sankheda ; Vajiria, Palasani, Chudesar, Jiral (Kamsoli), Bhilodia, Uchad, Paragam, Nalia and Bhalodra in Tilakwada ; villages in Savli, ten villages of the Dasgamkar *giras*. Later, the Rewa Kantha *Mehvas* districts were classified under the Sankheda and the Pandu *Mehvas*. Thus in the first quarter of the 19th century the district began assuming its present proportions.

The Definitive Treaty with its supplements thus on one side paved the way for Anglo-Gaekwad friendship, the best in the circumstances, but on the other hand created germs for future mutual ill-will and hatred. As both of them never fought with each other, the Gaekwad came to regard himself "the unconquered friend" of the English as distinct from those who had to be fought with. Basing their relations on the presumption that the Gaekwad was to be treated on a different footing from others, both Sayajirao II, who succeeded Anandrao in 1819 A. D., and Sayajirao III from 1875 A. D., came in conflict with the paramount power when they insisted on maintaining their self-respect even at the cost of many inconveniences and personal losses.

BRITISH PARAMOUNTCY

One of the outcome of the active interference sought for the British interference by the Vadodara Government to solve its problems was the issue of some 27 *Bahendharis* or guarantees. As time passed this was the medium used by the British to gain influence and outward semblance of authority as well in the Gaekwadi raj. Such guarantees were given to the families of Raoji and Babaji and such officers as Gangadhar Shastri, Patwardhan Bhaskarrao Vitthal and Vitthalrao Devaji ; to several members of the Gaekwad family like Daulatrao, son of the famous Kanhojirao ;

Mukundrao, brother of Anandrao, Murarrao, an illegitimate son of Govindrao, the family of Fatehsingh and several others in the family ; to merchants, bankers and other officials of the State. Of these quite a few belonged to the district of Vadodara ; the hereditary minister's family ; the banker families of Hari Bhakti, Samal Bechar, Mangal Sakhidas, Mairal Narayan ; firms of Kahandas, Patel of Darapura in Padra taluka, Bhaichand Desai and Khushalchand Ambaidas of Vadodara.

Though these guarantees were useful, necessary and welcome when given, in due course of time they were to become vexatious problems between the Baroda Government and the British as well as between the Gaekwads and the guarantee-holders. Above all, it hurt the Gaekwad's pride and the way in which it corroded his autonomy. As it happened, the successive Gaekwads became lax in abiding by several of these guarantees and though warned by the Bombay Government did not amend their ways. As a result, in 1828 A. D., the Governor of Bombay, Sir John Malcolm resorted to strong measures. On 28th March he ordered the "temporary sequestration of resources and territories of the Gaekwad State." Under this were covered the *paraganas* of Dabhoi, Bahadarpur, Sinor and tributes of Chhota Udepur and villages of Sankheda among many others in the Vadodara district. This temporary measure to acquire some districts greatly dismayed Sayajirao II and stiffened his attitude towards the British.

One of the most curious traits ascribed to Sayajirao II was his extreme avarice. This could very well be seen, that while the State was getting poorer, the Raja himself was becoming richer. This was because he distinguished his personal savings from the State property. In other words, probably, he treated all savings as money which he might spend on himself or on the State as he pleased. Again, Sayajirao kept his own private banks. The Bank of Ganesh Ishwar commenced working in 1829 A. D. Two other establishments of Sayajirao were in his own palace, jointly giving him an income of Rs. 1,24,000 a year. One more in the city of Vadodara gave him Rs. 8,000. These with a few others in the State "increased his private fortune by five lakhs a year." It is interesting to note that while the Resident accused him of amassing a private fortune at the expense of the State, the people of Baroda believed him "to be a prudent Prince who was simply striving to shake off British interference and transferring the revenues from one count to another that he might manipulate them as he chose." On his side, the Gaekwad also "thought it a policy to appear to be utterly involved in debt, to appeal to their (British) pity and to avoid their cupidity". They appear to have succeeded in their policy as the Bombay Government was at all times completely ignorant about the financial condition of the Vadodara State. In 1831 A. D. Lord Clare, the successor of Malcolm, switched over to a conciliatory policy. Lord Clare, visited Vadodara in 1832 and arrived at a settlement with Gaekwad. The British Government was released by the bankers from its guarantee on their coming

to a satisfactory understanding with Gaekwad for the adjustment of the debts. The sequestered districts were restored to the Gaekwad on his depositing Rs. 10 lakhs with the British Government to provide for the pay of the cavalry in case his own payment should fail. This conciliatory policy was shortlived. There was a dispute about the efficiency of 3,000 cavalry which the Gaekwad maintained to support the Subsidiary Force. The dispute was settled by an Agreement in 1841 which renewed the Treaty of 1817 and provided for a payment of Rs. 3,00,000 for the Gujarat Irregular Horse, for the maintenance of the contingent of 3,000 Horse by the Gaekwad and for employment in the tributary districts, the Gaekwad being permitted at any time to reduce the number so employed to 1,500 men. As it happened, in the State Government as well as at the British Residency at Vadodara intrigue and corruption replaced open opposition. One Sarabhai, a Nagar Brahman of Ahmadabad, who was the Native Agent at the Residency; Baba Naphde, one time the real head of Hari Bhakti's house and Veniram Aditram, one of the Ministers of the Gaekwad, now became the most powerful men in Vadodara. That villainy, bribery and corruption reigned supreme in Vadodara in last 20 years was borne out by the famous *Khatpat* Report of the British Resident, Sir James Outram in 1851. In 1854 A. D. Outram was directed by the Supreme Government "to weed out the establishment in the Residency office as far as was necessary and to abolish the post of Native Agent, which had been the source of many evils. He was also asked to see that the notorious Baba Naphde did not get re-employed. On his side the proud, Sayajirao II impatient of restrictions placed upon his State, landed himself in interminable disputes with the Bombay Government, which also gave him such occasions. It is needless to say that in this clash the Prince stuck to his guns, vigorous, tenacious and self-assertive that he was, and ultimately it was the State which was a loser.

The chaos in the State economy in the middle of the 19th century had its compensating side lights in breathing the new spirit in society. Some important steps were taken to eradicate social evils like *Sati*, Infanticide and Sale of Children. In early 1840 A. D., Sayajirao II made abetment of the practice of *Sati* to be a penal offence. Under Resident Capt. Carnac's influence a *Nyayadhishi* or central court was established at Vadodara. This happened during 1802-19 A. D., when the administration was conducted by a Commission. This court was different from that of *Kotwal* or a City Magistrate. In 1839 A. D., an appeal from the Central Court was permitted to *Devghar Kacheri*. Six years later, this *Kacheri* functioned as *Sardar Nyayadhishi* or a Joint Civil Court with the Central Court. In 1850, a special court called the *Darakdar Kacheri* was created to be a court of appeal from the *Sardar Nyayadhishi* in civil matters. Sayajirao died fighting for his rights in 1847 A. D., and was succeeded in turn by his three sons, Ganpatrao (1847-56 A. D.), Khanderao (1856-70 A. D.) and Malharrao (1870-75 A. D.). Throughout this period, the process of reorganisation continued unabated. The uprising of 1857 intervened and affected this change in

the attitude of the British towards the Native States in a significant manner. In this period, the conduct of political relations with Vadodara was first taken away from the Bombay Government in 1854 A. D., as a sequel to the *Khatpat* Report, but retransferred it to Bombay again in 1860 A. D. The whole scope of this changing relationship is very well depicted by the Resident, Col. R. Wallace in his important work *The Guicowar and his Relations with the British* (1866). Wallace became the British Resident in August, 1859 A. D., and on the 17th November, 1860 A. D., he was instructed to correspond with the Bombay Government and henceforth take orders from them instead of the Government of India.

Ganpatrao Gaekwad was of a complascent and unassertive character. In his reign therefore, the British Resident Capt. French was the guiding spirit of the State. Between 1848-50 A. D., under the influence of the Acting British Resident Capt. French, regulation was issued by Ganpatrao Gaekwad prohibiting infanticide among the Leva Patidar of the State. A good number of this community lived in the Baroda district. Similarly, the common practice of the sale of children was also proclaimed to be an offence. This was an important step in eradicating slavery. At this stage, an important step was taken in the interest of public health, when vaccination was introduced by the Gaekwad.

Capt. French is also reported to have procured from England, models of steam engines and an electric telegraph apparatus. On his advice, the Gaekwad, for the first time visited Bombay. The Resident also persuaded the Gaekwad to make roads and plant wayside trees, to connect the Camp area with the City on one side and with Fazalpur on the river Mahi on the other side, build bridges and *sarais*, a *dharamshala* at Tankaria bandar and to design a tramway from that place to the capital and finally to trace a twenty-two miles road from that place to Mandala. In view of the ready response from the Gaekwad to several of his suggestions, the Resident recommended the Government of Bombay to retransfer the *Mehvasi* villages of the Savli Paragana to the Gaekwad, but the Bombay authorities turned down this plea.

In 1856 A. D., the Gaekwad performed the last beneficial act of his reign, when he conditionally ceded to the British, the land required for the construction of the railway, which put the name of Vadodara prominently on the map of the country. Later, he was suitably rewarded for this gesture. The Gaekwad's loyalty proved a big factor in maintaining law and order in this part of the country allowing the British troops to be employed elsewhere. When Tatya Tope moved like a whirlwind in Gujarat, the Resident as a Special Commissioner of Gujarat, was instrumental "in disarming the population with the greatest expedition." In spite of these measures the district of Vadodara bordering on the trouble spots of the Panch Mahals like Dahod and Jambughoda, had its anxious moments. As the *Baroda Gazetteer* reports "several murders were committed in broad day light by some of the Vohoras

at Baroda town itself," as in those days the town was "filled with *badmashes*, bad characters of every kind and Khanderao's brother Malharrao, the heir to the *Gadi* was plotting against his brother's life and the public peace." As bands of *viilayatis* had penetrated as far as Dahod, the Vadodara district administration was compelled to place its outposts one hundred and sixty one km. in the direction of Indore in order to check their advances. During this period of turmoil, Khanderao's two *karbharies* Govindrao Rode and Ganesh Ojhe rendered valuable services which were noticed and rewarded both by Khanderao and the British Government. But Bhau Shinde who succeeded them in November, 1867 A. D., was later found implicated in a case of bribery offered to the Assistant Resident and his dismissal was demanded of Khanderao. The Gaekwad had to bow down to this wish and this was a bitter pill of British paramountcy that he gulped. However, the bitterest experience of this paramountcy was reserved for his successor, Malharrao Gaekwad in 1875 A. D. Khanderao died on 28th November, 1870 suddenly and in the prime of his life. Khanderao got constructed a portion of the 'Gaekwad Baroda State Railway' that branched out from Miyagam to Dabhoi in the Vadodara district.

Khanderao's love of chase almost amounted to a passion. For this games he built the handsome palace of Makarpura. He spent a lot of time hunting into the "magnificent costly and jealously guarded deer preserves" that lay in its neighbourhood in Dhaniavi and covering some 38 villages of Vadodara and Dabhoi talukas. This *Shikarkhana* was later to create problems for the people around, as these deers damaged the standing crop of the cultivators and the people could do nothing about it as it was declared a notified area, till the whole question was taken up by *Praja Mandal* in the next century. Such was the Gaekwad's fondness for jewels, display and buildings that some splendid gems were added to his family treasure, two silver guns were made that frequently were displayed in *swaris*, a palace was built, the arena sports were celebrated in the famous *Aggad maidan* with great enthusiasm. The Vadodara City people watched some of the well-known *Pahelwans* of the country engaged in bloody *kusti dangals* and celebrations of eccentric pigeon marriages which was a favourite past time of the Gaekwad. Amidst these pleasures the Gaekwad had a desire to reform and improve the State administration, but he lacked the will to carry them out as he overspent the State funds after his pleasures and Khanderao instituted the *Huzur* Fauzadari Court in 1860 A. D. It was to be both a magisterial and a criminal court, thus depriving the Nyayadhishi Court of its power to handle criminal matters. Khanderao attempted to introduce written law, which naturally, under the circumstances, took the shape of codes. Khanderao's Civil Code of 1861 A. D., as amended in 1869-70 A. D., was soon followed by the Criminal Code of 1861 A. D. The latter was first applied in the City of Vadodara and extended in 1863 A. D., to the whole State. Reforms were also introduced in the sphere of jails. A central jail was started by Khanderao at Vadodara in 1857.

On the 12th March, 1867 A. D., the execution by elephant trampling took place in the streets of Vadodara to the great horror of the people. This was the last time that such a barbarous form of punishment was meted out as the British Government obtained a promise from the Gaekwad that such punitive action would never again be employed.

In default of legitimate sons, his brother Malharrao, sheer by dint of fate, proclaimed Maharaja and from his confinement at Padra, brought to Vadodara with all dignity after the death of Khanderao. To his surprise he learnt from the British Resident Col. Barr that for some time he would be only a Regent and not be allowed to ascend the throne as Khanderao's widow was expecting a child and till it could be ascertained whether the new born was a boy or a girl, the powers of the Maharaja would not be exercised by him. Later, when Rani Jamnabai gave birth to a girl, he was confirmed in his position.

In the period of uncertainty, he commenced his reign with the intention of pleasing the British Government. His first act was to appoint the well-known Vadodara banker, Gopalrao Mairal, then in good books of the English his first Dewan. Gopalrao known for his many private and public charities, was a highly respected person in the town but his advanced age virtually prevented him from taking any active part in the administration, and in 1872 A. D. he died while still in office, having earned a distinction of being "the only Baroda Minister, who had not been ejected from his post, either by the action of the Maharaja or on the insistence of the British Government." Under him was a Naeb Dewan, Balwantrao Rahrkar, a Deshastha Brahman by caste, who had been a betel-nut and leaf seller at Kalyan, near Bombay. He was almost an illiterate person. As several such persons of doubtful character and intelligence gathered round Malharrao, evil counsel rather than a wise policy was readily heard at the Gaekwad's court. Moreover, Malharrao was from the outset, determined to take his revenge for the sufferings he had undergone at Padra. With his fateful security now he unleashed in Vadodara, a misrule that ultimately ruined him and as fate would have it, this eventuality brought into prominence the hitherto forgotten branch of the Khandesh Gaekwads, descending from Prataprao, brother of Damajirao II.

While Khanderao's reign had been marked by an almost reckless expenditure, that of Malharrao witnessed rapid deterioration in the nature of government. When Malharrao ascended the throne in November, 1870 A. D., "the halcyon days of prosperity had passed away but the Gaekwad did not recognise the fact. Not only he failed to lighten the burden his brother had laid on the people but on the contrary increased it by reviving the worst devices of past Gaekwads of accepting presents, *nazaranas* in the disposal of revenue and judicial matters. He reintroduced a system similar to farming out of the districts and by levying irregular or special taxation wherever possible." To add to this when he ordered public flogging in the

streets of Vadodara, the worst fears of the people were aroused. His final deposition put an end to such fears. The five-year rule of Malharrao in Vadodara raised many questions, some of them still remain to be answered. He had begun hunting out those who were faithful to Khanderao and were suspected to have a share in his harassment. Rani Jamnabai, feared him so much that before the birth of her daughter she had moved to the British Residency area and delivered her child there only. Thereafter also she choose to stay away from Vadodara. Khanderao's Dewan, Bhau Shinde was found dead in suspicious circumstances in his prison cell. There were occasions during the Holi festival in the town celebrated by Malharrao that degenerated into physical and mental distress for many women. And above all, his administration became inefficient, dilatory and corrupt. By 1873 A. D., things came to an intolerable pass. In that year, to the Gaekwad's ill-luck, the easy-going Col. Barr was replaced by an energetic but meddlesome Col. Phayre. Soon the Gaekwad and the Resident were at logger-head. If Col. Barr interfered too less in Vadodara administration, his successor came to be accused of interfering too much. Now the frequency of the Resident's Reports with details of maladministration prevailing in Vadodara increased. They gained in weight when the Bombay Government fully supported them. This necessitated a detailed inquiry. The Government of India therefore, instituted a Commission of Inquiry on 18th October 1873 A. D., headed by Col. Richard Meade. The Meade Report when published held Malharrao guilty of both maladministration and misrule. He was given a chance to improve within a year with the help of a good minister of his choice and he was also warned by the paramount power that if he failed to improve his administration within the stipulated period, he would be deposed. Malharrao thereupon invited the most venerated Indian leader, Dadabhai Naoroji to become his Dewan. Dadabhai came with four of his trusted colleagues and began the 'cleansing campaign' during which he found both the Resident and the Gaekwad coming in his way, and soon resigned and went away. Even the meddling Col. Phayre was transferred and Sir Lewis Pelly became the new Resident at Vadodara in December, 1874. However, before going out, Col. Phayre had accused the Gaekwad of trying to poison him and establishing a *prima facie* case. On a police inquiry the Gaekwad was arrested and Phayre himself temporarily assumed the charge of the government at Vadodara. A Second Inquiry Commission presided by Sir Richard Couch, consisting of three Englishmen and three Indians was instituted to look into the Resident's charges. A regular trial took place whose results were inconclusive as the members came to be divided equally on racial lines. At the end the Secretary of State, Lord Salisbury taking into account the charges of maladministration and misrule, deposed him by the Proclamation of April 19, 1875 A. D. The same Proclamation also announced that the widow of the late Gaekwad Khaderao, Rani Jamnabai would adopt some member of the Gaekwad house, who with the concurrence of the Government of India would be seated on the *Gadi* at Baroda. This latter announcement came as a surprise to the town

people, when the city was rife with all sorts of rumours. In this situation, when the claims of the local pretenders for the *Gadi* were negatived, the town observed a *hartal* and there was even a petty rising in support of Malharrao which indicated that he was not altogether a detested prince as he was made to appear. The rising was however quickly put down by the British troops. The *Baroda Gazetteer* observes that "the financial disorder was so complete that we find that in the year in which Malharrao's reign came to an end, the local revenues of all kinds amounted to only ninety-four lakhs while one crore and seventy one lakhs had been spent." The new Dewan Raja Sir T. Madnavrao then was expected "to deal with a chaos amid darkness." In April 1875 A. D., Malharrao was deported to Madras and in May without much disturbance the Special Commissioner and the Agent to the Governor General Sir Richard Meade seated Sayajirao III, whom Jamnabai had adopted from the Khandesh branch of the Gaekwad family, on the *Gadi*. In the same month Raja Sir, T. Madhavrao, till recently the Dewan of the Holker was invited to be the new Dewan of Vadodara.

Between 1875 and 1881 A. D., the Dewan carried out number of reforms to end the chaos. He abolished the old State Banks, and established the Huzur Treasury and a separate Audit Office for the first time. The Potedari system was done away with. A Reserve Fund was created. Sayajirao III himself got Treasury, Budget and Pension rules framed between 1885-86 A. D. The Daily Sheet system of accounts was first introduced into the Vadodara *mahal* in July, 1891 A. D. In the early part of Sayajirao's rule several administrative changes were implemented, some of them affecting the Vadodara district. Till about 1880 A. D., there was a taluka called Choranda with its headquarters at Koral. In that year the headquarters was removed to Karjan as the Bombay, Baroda and Central India Railway made a nearby village of Miyagam a railway station. However, the taluka continued to be known by its old name of Choranda only. It was about 1909 that the name of the taluka was changed to Karjan by which it has since been known. Again, Jarod was the chief town of the old Jarod taluka and by the partition of which the present Savli and Vaghodia talukas are framed. This happened around 1891 A. D. In a further redistribution in 1921 the village of Karnali was transferred to Tilakwada, while Ranoli, Sankarda and seven other villages of the Savli *mahal* had been transferred to the Vadodara *mahal* on 1st August, 1922. A Regency Council mainly composed of Sir Richard, Madhavrao and Jamnabai looked after the young Prince's interest as well as the Vadodara administration. It was during this period of Sayajirao's minority of six years that the foundations of the New Order in Vadodara were laid. A new chapter thus opened in the history of Vadodara.

Just as the more modern history of Vadodara district is closely interwoven with the political fate of the house of the Gaekwads, in a similar way the history of the capital city of the Vadodara State, viz., Vadodara a part of the

Vadodara district, is so mixed up with the political history. For Sir Richard Meade Vadodara city had nothing to recommend itself. He also found it an uninteresting place. There was dearth of good drinking water. Open gutters annually invited the epidemic of cholera. Madhavrao too saw in the town dingy houses, shut off from sunshine and where men lived with cattle. If this was the condition of the capital, that of the rest of the district can only be imagined. Thus the process of modernisation that began in 1875 A. D. not only beautified the city but transformed completely the administration, economy, society and culture of the people through its course of 75 years. This period was also to determine what kind of relationship was to develop between the ruler and the ruled. The dominant nationalist sentiment of later times was to find in Sayajirao a ready-reckoner, but the Geakwad who nursed a grievance against the British paramountcy as it operated and which burdened him with lots of restrictions, could not bear any more, when people demanded a share. In the period that followed the year 1875 the administration was toned up and number of new reforms were made in the State.

Already the cleansing campaign of Dadabhai Naoroji had shown the right path and Raja Sir T. Madhavrao quickly picked up its thread. The administration was streamlined to achieve maximum public welfare. Over this Sayajirao built up an imposing facade. For any student of history of Vadodara, it would be difficult to dispute the judgement of the *Baroda Gazetteer* that in next forty five years (from 1881 A. D.), the work accomplished was remarkable. "The old *Ijara* and *Bhagbatai* systems have been abolished. A scientific land revenue survey and settlement has taken the place of the dead *Ijara* and *Bhagbatai* : petty and vexatious imposts (like *Gadi Nazarana*, sugar cane monopoly in Vadodara city, monopoly to sell sweets in Harni Mela in Vadodara district) have been abolished ; and duties which hampered trade have ceased to exist. Departments of government have been formed on the model of those in British India. Power statements are provided for all officers and rules and regulations are prescribed in detail so that the machinery of administration may be carried on effectively and efficiently. Old laws have been amended, new codes have been formed and the executive and judicial functions have been separated." Till 1860-61 A. D., Vadodara *mahal* had been divided into 18 *Thanas* and the *Thanedar* did both the *Fauzdari* and *Mulki* work. Thereafter he gave up the latter job, but in 1868-69 A. D., the two functions were again united for him. The Vadodara district suffering under over assessment was duly remedied under the new administration. At the same time care was taken not to use any undue harshness in extracting arrears. Partial remissions were granted in the year 1877-78 A. D., as the rains were scanty. Only a nominal number were brought to books for failing to pay even the reduced rent.

A regular Survey and Settlement Department for the whole State was organised in the year 1883-84 A. D. Its first job was to introduce a uniform

land measure. In the Vadodara district, the standard land measure was *Kumbha* while elsewhere in the State it was *Bigha*. The *Kumbha* was more than the latter and was not again of the same nature everywhere. So the *Bigha* of 4/7 of an acre was introduced as the standard measure all over the State. The settlement on the *raiayatwari* assessment was generally made for the period of 15 years and at the expiry of this period for 30 years, but in the Waghodia taluka of the district it was fixed for 20 years, in accordance with the section 80 of the Baroda Land Revenue Code. It may be noted that before the *raiayatwari* system, there was the *Holbandi* or plough-assessment system prevailing in certain backward parts of the district, which was a crude, reminder of *Kumavisdar's* rapacity. Similarly, at the time of the *Ijara* system in the district, there grew up *Ankadabandi* (અકડાબંદી) or *Ekankadi* (એક અકડા) tenures in *Mehvasi* villages and an *Adania* (અદાનિયા) or land mortgage tenures. Particularly, the latter in the course of time became a serious obstacle in the equitable settlement of the country. Finally Sayajirao III, scrapped it off.

The Grants of Land and *Saliyanas* or Privy Purses frequently landed the State in big revenue losses. Even though the *Ijaradars* were strictly ordered not to alienate lands, in complete disregard, they continued to do so. In this manner sometimes the whole villages were disposed off. In the Vadodara district 112 such villages were alienated. This problem was solved by the new Survey and Settlement Department after a good deal of scrutiny.

The new administration removed such taxes as *Tafric Vero* and *Vania Vero* on merchants and shop-keepers with several others to be replaced by the tax on incomes on the model of the Bombay Government. Its implementation first began in 1896 A. D., in the Padra taluka of the district. By 1902 the whole district was covered. The introduction of the Stamp Duty proved a bit difficult task. Before 1827 A. D. such a duty was unknown in the State. When Sayajirao II introduced it in that year, only a few documents were required to be stamped under it. Under the new administration the Stamp Act came into force in 1888-89 A. D., but was opposed by the citizens of Vadodara. As a mark of protest, business was suspended in the city and the district on 22nd July, 1889 A. D. The peaceful strike lasted for 13 days. The tactful persuasions by the administration finally resolved the issue and the strike was withdrawn. This Act was later revised and was implemented in 1908. The State administration too was to have a first taste of the changing mood of the people.

Another typical attempt to follow the British pattern was regarding the system of administration of the Wards' Estates. In 1904-05 they were placed under a new officer called *Palya Palak Adhikari*.

The new administration removed the objectionable duties that hampered trade. In the old system the State abounded with *nakas* or custom check-

posts and each taluka and some time each sub-division had a separate schedule of duties of its own. Moreover, the schedule itself was a complicated one. Every town of the district levied duties on almost every item of goods 'imported' and except in the case of the Vadodara City, on all goods 'exported'. The rates in the City of Vadodara were reputed to be very high. Duties were either levied on weight or value of goods. In Vadodara in all there were 115 custom check-posts where such transit duties as *Rahdari*, *Gadai* or *Khunta* were levied. Raja Sir T. Madhavrao ordered that "no more than one import and one export duty will be levied at the railway stations and on the frontier." In land *nakas* with their duties were abolished. The system was further rationalised in September 1878 A. D., in such a manner that trade received great impetus. Still however, the interlocking of Vadodara territories with British districts caused certain pin-pricks. For example, all passengers coming to Vadodara by railway were detained at Vadodara and Goyagate stations and the *nakas* of Vadodara where the accompanying luggage was inspected. As this came to be greatly resented by the public, it was abolished in 1886 A. D. Further Tarrif reform was carried out in the more compact Vadodara district in November, 1904. The third reform was brought into force on 1st August, 1906 which abolished all octroi duties in the Vadodara district except in the Vadodara City, where its industrial development was picking up.

The healthy spirit of the new administration was to be seen in the reorganisation of the Judicial Department. The Dewan took particular interest in establishing a new and efficient Judicial Department. In 1875-81 A. D., he made efforts to put it on a firm basis, though the real reforms came in after 1881 A. D. In that year a Law Committee was formed to look after the work of legislation. A revised Civil Procedure Code became law in 1896 A. D., while the new Penal Criminal Procedures, Police Code, a General Clauses Act were drafted and implemented in the beginning of the 20th century. The two epoch-making social measures, the Hindu Widow Remarriage Act and the Freedom of Conscience Act were passed in 1902. The Child Marriages were also prohibited during this period by law. Codification of Hindu Law took place in 1905. A radical measure was adopted when the Hindu Son's Liability Act was passed in 1908. This freed him from his liabilities of ancestral debts. On a trial basis it was also directed in 1901 that certain cases in Vadodara district should be tried with the help of jurors or assessors in order to seek greater association and co-operation of the people in this work. This was done in two District Courts in Vadodara one of them being the City Court. Under the District Courts were the *Munsiffs'* Courts in Vadodara City, Padra, Karjan, Sinor, Dabhoi, Sankheda and Savli. In turn, they had several village *Munsiffs'* Courts that completed the chain.

It may be observed that the process of separating the judicial functions into different branches had to face the whims of different rulers and

prejudices of various administrators. It was Malharrao who established a *Varishta* (High) Court of final appeals in all civil, criminal and revenue matters.

The efforts to create some order in the judicial field would not have succeeded if reforms would not have been carried out in the Police Department as well. Before 1860 A. D., it was the *Ijardar* who exercised magisterial as well as police functions. For the City of Vadodara, there were *Chotra* or *Chabutra*, something resembling to a central meeting place, and like *mahals*, these too were farmed out.

The farmers of these places exercised the criminal and police powers with the help of 300 *fauzdari sipahis*. This system was abolished between 1860 and 1870 A. D. The most important change introduced in 1860 A. D., so far as it concerned districts, was the appointment of 4 *Fauzdars* or rather *Aval Karkuns*, one of whom looked after the police work. By about the time when Malharrao's reign ended, a body of mounted police was organised. After 1875 A. D., the magisterial and police functions were separated and a regular police force of a modern type was created. This was still modernised by the Police Act of 1881 A. D. which was again revised and updated in 1898 A. D. In the two decades that followed many other reforms were carried out against heavy odds.

If the police arrangements were unsatisfactory before 1860 A. D., those of jails were much more so. The nasty jail in the Vadodara City called Govindrao Jamadar's Pathori, where offenders of respectable families were kept, was a dreaded horrible dungeon with gnats and other insects pestering it all around. Under the new administration in 1875 A. D., the Central Jail of Vadodara was opened in 1881 A. D., Sayajirao III ordered the preparation and publication of a Jail Code. Prisoners were now employed on remunerative works. Borstal System to reclaim criminals was adopted. A separate Reformatory for juvenile delinquents was also opened in Vadodara.

The new administration not only gave fresh impetus to the State machinery but also the face-lift to the City of Vadodara. Both the City and the State of Vadodara made a name for beautiful architecture in the country. No one possessed in this department the full, required professional knowledge. Moreover, its accounts were in a mess with heavy claims against its manager, one Gulamali Lukmanji Vohora. Raja Sir T. Madhavrao's first job was, therefore, to replace it by a regular Public Works Department, under G. F. Hill, appointed as the State Engineer. In December 1877 A. D., a little less than Rs. 2,000 were sanctioned for the City and the Vadodara district alongwith a moderate establishment of the State Engineer's Office in the Capital. Between 1875 and 1881 A. D., a little less than Rs. 50 lakhs were spent after buildings, communications and public park with such other misce-

llaneous items. In fact, construction of public buildings became Sayajirao III's objects of special care.¹

The primary education was made compulsory in the State. The new spirit of the welfare of the people could also be seen in fostering schemes of sanitation and medical aid, providing hospitals in principal district towns, dispensaries in small places and travelling dispensaries for the backward parts of the district. Their importance could be realised only if a glance is cast on the toll of human lives that epidemics like plague, malaria, cholera and influenza took in the district in the last 100 years. In 1863-64 A. D. plague claimed no less than three to four thousand peoples' lives in the Vadodara City alone.

According to the Census of 1872 A. D., in the Vadodara City there were 235 and in the district 139 such medical practioners, engaged in this profession. This number thereafter went down gradually as more hospitals and dispensaries dispensing western medicines were opened. First such hospital was opened in July 1855 A. D., in the western corner of the City of Vadodara under a Residency Surgeon, Dr. Stratton. However, it may be observed that a Medical Department was first opened in 1876 A. D., by the new Dewan. In the following year the Sayajirao Military Hospital was opened in the Varashia Camp Parade ground in the City, while Jamnabai Civil Hospital was opened in the heart of the City. After this, numerous dispensaries found their way in the various parts of the district. The opening of Countess of Dufferin Hospital in a spacious building designed in the Indo-Saracenic style, on 9th November, 1886 was a noteworthy milestone in this field. In later years this hospital was continuously expanded to meet varying needs.

Alongwith the expansion of medical facilities the problems of public health and sanitation also received attention. In 1891 A. D., the first Sanitary Department was opened and ten years later *Arogya Rakshan Niyam* or Preservation of Health Regulations were passed. A full-fledged Central Sanitary Board was instituted in 1917-18. The cumulative effect of these measures was to be seen in reduction of deaths due to epidemics and diseases. Already the Census figures of 1872 and 1881 A. D. indicated a rising trend in population, though famine and pestilence claimed a heavy toll around the close of the 19th century, when the population figure fell. The Censuses of 1901 and 1911 showed an adverse balance due to growing stress of economic conditions. In this pattern the district appears to have lost 7 per cent of its population, but even then when figures of death per mile between 1911-12 and 1921-22 are compared, viz., 22.6 and 17.8, the effects of measures taken for preservation of public health would be better understood. This improvement will be still better appreciated when it is remembered that enough funds

1. For details please refer to the "Chapter XV- Education and Culture".

for the moral and material development could never be procured and that people had not learnt enough to maintain and make use of all amenities available. This latter consciousness largely depended on how efficient were the local bodies in the district. Sayajirao introduced a complete system of Local Self-Government and established gram panchayats, prant panchayats and municipalities.

Under the reforming zeal of Sayajirao III, the slow-moving society of the district suffered a gradual change. Essentially it was an agricultural society and many of the so-called towns were merely over-grown villages. The 1921 Census reported 19 towns and 820 villages in the district. The industrial enterprise and manufacture in the western style was confined only to the City of Vadodara and the town of Dabhoi. The Maratha ruler in a predominantly Gujarati area had its impact on making it a composite society. For social and business purposes, the district is intimately linked with Bharuch, Kheda and the Panch Mahals districts. But a good number of people came here in search of jobs and services from Colaba, Ratnagiri and Poona in Maharashtra as well as from the States of Madhya Pradesh, Rajasthan, Punjab, Bengal, Tamilnadu and Uttar Pradesh. They looked either for services in civil or military wings or worked as traders, labourers and servants. In the 19th century literature and life, this composite character of the district was also reflected.

CONTEMPORARY VADODARA DISTRICT

Before the merger of Vadodara in Bombay State, there were nine *mahals* and two *peta mahals* in the district.

After the merger, Petlad *mahal* and Bhadran *peta mahal* were incorporated in the Kheda district, but the areas of Chhota Udepur, Sankheda and Pandu *mehvas* were merged with the Vadodara district and thus it was reconstituted to include talukas of Vadodara, Padra, Karjan, Dabhoi, Sankheda, Jabugam, Chhota Udepur, Nasvadi, Savli and Waghodia and a *mahal* of Sinor. The new district faced new problems, on account of addition of backward areas and loss of rich Charotar regions. In the old Vadodara State, nearly all villages had wells for drinking water, but in the newly added areas this was not the case. Illiteracy was also wide-spread in this backward area, where means of communications were also not adequate. Moreover, the old Vadodara district had benefited a lot from the financial aid it received from the Diamond Jubilee Trust of the Gaekwad created specially for the uplift of rural areas in 1936, but the newly added areas though rich in jungle produce, were still lagging much behind in matters of public welfare and to an extent proved a burden to the new district, for some time. During recent times Sinor was given the status of a taluka while Tilakwada became a *mahal*.

As a far sighted ruler, Sayajirao III tried to improve both agriculture and industry in the State. As an early famine relief measure in 1900 a dam on the river Orsang at Jojwa was constructed which provided till date irrigational facilities to surrounding areas. He encouraged the formation of co-operative societies and some 1,300 could flourish between 1905 and 1942. The Agriculture Department was strengthened by an addition of an improved veterinary wing and a scheme of a Land Mortgage Bank was prepared. In 1918 a Board of Economic Development was created which was later on reconstituted as an Economic Development Committee to co-ordinate work in both the agricultural and industrial fields. The establishment of the well-known Alembic Chemical Works in 1907, the opening of the Bank of Baroda in 1908 and starting the Sayaji Iron Works in 1914 were important land marks in Baroda's industrial growth. In the period from 1927 to 1941 the number of industries were to grow slowly but steadily. However, Sayajirao did not dream of making the City of Vadodara industrial town and sought to remove its congested areas with the establishment of a 'City Improvement Trust for Baroda' under an expert town planner Prof. Geddes, in 1910-11.

Under Sayajirao III in 1913 the Library Movement was carefully planned out to expand in the districts by Dr. W. A. Borden and Motibhai Amin. In 1927 the Central Library at Vadodara contained collection of 10 lakh books. The founding of the internationally reputed Oriental Institute was a further milestone in 1915. In 1943 its collection was 14,000 manuscripts and 12,000 printed works. In 1934-35 the Department of Archaeological Survey was established. In 1936-37 an Aerodrome was got ready at nearby village Harni. In 1937-38 the State Economic Board came to establish its branches at the district level. On 6th February, 1939, Sayajirao III breathed his last and thus ended an epoch-making rule of benevolent Prince. During the last stages of his life while Sayaji continuously fought for his rights and *Izzat* with the British, daring to cross swords with Lord Curzon on one side, on the other he raised his eyebrow at the demand of responsible Government by the Praja Mandal of the State. On the first front the British paramountcy tonned down its pride. It was his successor, Pratapsinghrao, who was finally carried away by the rising tide of popular movement.

In the later part of Sayajirao III's rule two institutions played an important part in shaping the life of the people. On 11th November, 1916 *Vadodara Sahitya Sabha* now known as Premanand Sahitya Sabha was founded. The other institution was Vadodara Rajya Praja Mandal.

On ascending the throne on 7th February, 1939, Maharaja Pratapsinghrao grand son of the late Gaekwad promised a reformed constitution of the State with a popular ministry and with a clear majority of elected members. Accordingly a new *Dharasabha* came into existence by the Government of Baroda Act of 1940. Of the total 60 members 37 were elected, 17 nominated

and 6 were *ex-officio* members. This Act was important and different from its kind in the rest of British India, as it rejected communal constituencies. It established a majority of elected members, provided for appointment of an elected member to the Executive Council and a selection of a Deputy President and 3 Parliamentary Secretaries from amongst non-officials.

Pratapsinghrao also promised on his Coronation Day a permanent reduction of Rs. 22 lakhs in the land revenue, donated a crore of rupees to perpetuate the memory of his distinguished grand father for creating a trust for various purposes connected with the betterment of his people, raised the limit of the taxable income from Rs. 750 to Rs. 2,000. The rising barometer of State activities on all fronts was witnessed during the rule of Pratapsinghrao till the State was merged in 1949 with the Bombay State. However, in the post-war years when the transfer of power was to take place and finally when India achieved Independence and the problem of the reorganisation of States was in the forefront, Pratapsinghrao cut a sorry figure by showing the lack of farsightedness as described elsewhere. He had to be finally deposed when his son Fatehsinghrao Gaekwad became the Maharaja. But by that time the glory of the Gaekwads and of Vadodara were on the wane. This was partially regained when after the memory of the late Sayajirao III, the maker of Vadodara, a University was established on 30th April, 1949. This was called Maharaja Sayajirao University of Baroda and Shri Fatehsinghrao Gaekwad became its Chancellor. This institution now remains as the centre of life in its several facets for the district. In the roaring 1970 the district with the allotment of Rs. 23.23 crores looks forward to achieving new heights of public welfare and live upto its worthy name.

Alike other States, at the time of merger, the ruler accepted the privy purse agreement. His privy purse was fixed at Rs. 26.5 lakhs per annum but the privy purse was abolished by a special Ordinance with effect from 6th September, 1970. On an appeal by some rulers, the Supreme Court struck down the Ordinance as *ultra vires* of the Constitution with the result that the privy purse had been revived.

Subsequently, the Parliament passed the Constitution (twenty-sixth Amendment) Bill in 1971, for abolition of the privy purses and privileges. The President of India has, with effect from 28th December, 1971, withdrawn the recognition of the Rulers of the States and therefore, the Rulers cease to be Rulers and their privy purses and personal privileges hitherto enjoyed by them stand terminated from 28th December, 1971.

The privileges enjoyed by the Rulers and their families were mainly free medical facilities to them and their families, the Palace Guards at their official residence, exemption from the provisions of the Indian Arms Act,

the Motor Vehicles Act, the Education Cess Act, exemption from the local taxation, use of red number plates on the cars belonging to them and their family members, their right to be addressed by their usual recognised titles, gun salute according to the official table, fishing and shooting rights, immunity from the process of the courts of law, full military or police honour at the time of their funeral or the funeral of their wives or heirs apparent and requisitioning of their private property, etc.¹

THE CHHOTA UDEPUR STATE

Chhota Udepur or Mohan was the first among the list of 2nd class States in the Rewa Kantha Agency. The position was however disputed by the State of Baria which claimed the precedence. Government had in a way recognized this claim by raising the Prince of Baria in January 1921 by increasing his salute from 9 to 11 guns as a personal distinction, over the head of Chhota Udepur, whose salute remained 9 guns till merger.

The ruling family were Chohan Rajputs, who formerly ruled at Pavagadh from 1244 to 1484 A. D. In the latter year Mahmud Begada, the renowned King of Gujarat, obtained possession of Champaner and expelled the Chohans, who repaired to the eastern possessions in the hills and established the principalities of Chhota Udepur and Baria. The founder of this State was Prithiraj, the grandson of the last Rajput king of Champaner (Pavagadh). The history of the State is as follows.

The Rajas of Chhota Udepur and Baria belonged to the Khichi Chohan clan of Rajputs, whose head, Anal, is said to have been created by Vasisth Muni out of the Agni Kund on Mount Abu. Ajayapal, one of Anal's successors, is said to have founded the city of Ajmer, and another successor, Manikrai, who settled at Sambhar, handed down the title of Sambhari Rao, or Lord of Sambhar. The Khichi Chohans appear to have first settled in the Sind Sagar, and in the eleventh century we find Bir Bilander or Dharmagaj, one of the successors of Manikrai, defending Ajmer against Mahmud of Ghazni. His successor, Bisaldev, or Visaldev, flourished from 1010 to 1074 A.D., founded the town of Visalnagar in North Gujarat. The line of his immediate successor culminated in the immortal Prithiraj Chohan, the celebrated hero of Chand's great epic, the *Prithiraj Raso*. After the death of Prithiraj on the field of battle, the Khichis settled in a part of Malwa which came to be called after them, the Khichi Vada. In 1300 A. D. Khichi Hamir, a descendent of Prithiraj, gallantly defended Ranthambhor against Alaudin Khalji, but after the fall of this a large body of Khichis migrated to Gujarat, and there in 1344 A. D., under the leadership of Palanshi, conquered the kingdom of

Champaner and its dependencies, which remained in the Palanshi family for no less than eleven generations. But in 1484-85 A. D., after a prolonged siege of twelve years, the fortress of Champaner, gallantly defended by Patai Rawal, also known as Jayasing, who was then the reigning prince, fell at last by a combination of treachery and stratagem, to the renowned Sultan Mahmud Begada of Ahmadabad. The story goes that the Raol's brother-in-law treacherously joined the Mahomedans and, leading the Rajput Prince to believe that he was sending a supply of grain for the garrison, managed, under that pretence, to convey into the fort, hidden in sacks, some one or two thousand (for, the accounts are not definite) armed men. The defeat of the garrison followed, and was signalized by the capture of the unfortunate Prince and his minister Doongarsinh. Sooner than renounce their faith and become converts to Islam, the option given them, if they wished to preserve their lives, they chose death and were both barbarously murdered, their bodies afterwards being exposed on stakes. On the capture of Champaner the two surviving sons of Patai Rawal escaped. Prithiraj founded the State of Chhota Udepur,¹ while Doongerji founded that of Baria. According to bardic accounts the elder son escaping from Champaner settled at Hamph, a small out of the way hamlet on the right bank of the Narmada. Left unmolested in this wild country, he and his descendants established claims of tribute over a large part of east Gujarat, and later on during the decay of the authority of the Ahmadabad Kings (1540-1572) were able to spread their power and move their head-quarters to Mohan in a richer and less remote part of the country. Commanding the pass into the difficult tracts on the banks of the Narmada, the site was well chosen, and its ruins now in existence show that Mohan was once a place of considerable importance.

In course of time, during the further decay of Mughal power in the early part of the 18th century, the capital was moved twenty miles north to Chhota-Udepur on the banks of the Or river. The site was well suited for trade, but it was a place of no strength, and the Chiefs were, before long, forced to pay tribute to the Gaekwad.

This State became a tributary to the Gaekwad, previous to the advent of the British Government. Owing to a doubt whether the political control of Chhota Udepur was transferred to the British Government in 1820

1. According to one version Baji Rawal is said to have founded Chhota Udepur. He died childless and was succeeded by his cousin Durjarsing and he by his grand-nephew Amarsing. After Amarsing came Abhayasing and he shortly after being killed by a fall from his horse was succeeded by Rayasing. Rayasing died in 1819 and was succeeded by his son Prithiraj. Prithiraj, after his death in 1832 was succeeded by his cousin Gumarsing who was succeeded by Jitsing. Jitsing died in July 1881 and was succeeded by Motising. Thereafter the line continued unbroken till the last ruler, who was Maharaval Natvarsing, son of Fatesinghji, the previous ruler.

1. G. R., G. A. D., No. PIR-1071-888-GH, dated 12th January, 1979.

along with that of the petty States in Mahi Kantha, an agreement was made in 1822, by which the Gaekwad surrendered his control, and the State became subject to the British Government, paying under guarantee, an annual tribute of Siasahi Rs. 10,500 to the Gaekwad. This tribute was in 1871 reduced to Gaekwad Rs. 10,147-9-0 or Government Rs. 8,769-13-4, in the course of a settlement of certain disputes between the two States.

The town of Chhota Udepur was the scene of one of Tatia Tope's defeats in the rebellion of 1858, description of which has been given in the account of freedom movement in the subsequent pages.

Prithiraj, with whom the above engagement was made, was succeeded by Gumarsing, and he by his nephew Jitsing, who died in July, 1881 and was succeeded by his son Motising, who died in 1895 after a reign of 14 years. The Chief, Maharawal Shri Fatehsing, son of Motising, had received his education in the Rajkumar College, Rajkot, and was placed on the Gadi and invested with the powers of the State in March 1906. During his minority the administration of the State was conducted by a Government administrator under the supervision and orders of the Political Agent.

This State, like Rajpipla, came under Agency management thrice from 1854 to 1855, from 1881 to 1884, and from 1895 upto 1903. But the administration did not last for long periods as in case of Rajpipla. Maharawal Shri Fatehsingji, the ruler, was born on the 23rd October, 1884. During his regime many improvements had been made in the State. Maharawal Natwarsinhji son of Fatehsinhji ascended the throne after the death of his father.

The State enjoyed 2nd Class jurisdiction, that is unlimited civil powers, and in criminal matters power to try all but foreign subjects for capital offences. It had no military force but had body guard and police. The Chief received a salute of 9 guns. The right of adoption was conferred upon him in 1890.

After the integration, the ruler accepted the privy purse agreement under which the privy purse was fixed at Rs. 2,12,000 per annum. This privy purse was abolished by a special Ordinance dated 6th September, 1970 issued by the President of India. On an appeal by some rulers, the Supreme Court struck down on 7th December, 1970 the Ordinance as *ultra vires* of the Constitution. As a result, the payment of the privy purse had been revived.

By an Act of Parliament, privy purses and privileges of the Rulers were abolished with effect from 28th December, 1971.

SANKHEDA MEWAS

This was a cluster of petty estates on the banks of the Narmada river, owned by chiefs of Rajput origin. Some had retained their Rajput customs and caste, while others had embraced Islam under Musalman pressure. The latter kept up a few of the Hindu customs and were called Molesalams. These estates dated from the fall of Pavagadh (1484 A. D.), when the Rajput power was broken by the Musalmans, and the Rajput gentry betook themselves to the difficult country between the rivers Orsang and Narmada and to the banks of the Mahi.

In the *Bombay Presidency Gazetteer* it is started in the sacred hill of Pavagadh centre the family histories of the Sankheda Mehvas Chiefs. Of the Thakors or landed gentry, few can trace their families beyond the time, when a Chohan prince reigned at Champaner, and drew the Rajput chivalry of eastern Gujarat to defend the great stronghold of Pavagadh, (1482-1484 A. D.) threatened by the armies of Mahmud Shah Begada. The fall of Pavagadh forced the Rajput chiefs to retire to the difficult country between the rivers Orsang and Narmada. It seems at first there were eight chief families, viz., a Rathod at Vajiria; Chohans at Agar, Manda and Gad; a Daima at Uchad; a Gori at Jiral; a Solanki at Nasvadi, and a Parmar at Palasni. Later on account of Muslim pressure the Chiefs of Vajiria, Agar, Uchad, and Jiral, embraced Islam, and became known as Molesalams, while those of Mandva, Nasvadi, Palasni and Gad, kept their lands without changing their faith. In course of time eight original families were sub-divided. Younger branches of the house of Vajiria, taking their shares of the family estates, established themselves at Vasan, Vora, Nangam, Dudhpur and Bihora, and in the same manner Vanmala and Sindiapura separated from Agar,¹ Sanor from Mandva, Regan, Virpur and Vasan from Uchad; and Chudesar and Nalia from Jiral. Early in the eighteenth century, when Mughal authority was weakened and Maratha supremacy not established, the Sankheda chiefs were able to spread their power over the rich plain lands of Gujarat enforcing tribute in land and money as far as the walls of Baroda. However they could not carry on their activities for a long time. Marathas not content with recovering the revenues of the plain, pressed the chiefs in their own lands, and by sending an armed force wrung from them the payment of a yearly tribute. When Baroda was ruled by strong ruler, the Sankheda chiefs were forced to pay a regular tribute and to refrain from disorder.

In 1822 the disorder was so great that the British Government had to intervene. The Chiefs agreed to live peaceably and to pay the tribute fixed by the British Agent to the Gaekwad, while latter agreed to acknowledge their independence in their own States and to respect their rights in the

1. *Gazetteer of the Bombay Presidency*, Vol. VI., *Reva Kantha, Narukot, Cambay, and Surat States*, 1880.

villages of Baroda territory. The petty chiefs thereafter did not give trouble. They had paid their tributes regularly and accepted the Political Agent's settlement of their boundary and succession disputes. Some of them had been invested with small jurisdictional powers which they exercised subject to the supervision of the Agency Courts. A list of the estates is given below :

Family 1	Estate 2	Revenue 3	Caste 4
		Rs.	
CHHOAN (7)	1. Mandava*	(a) 58,400	Hindu
	2. Gad Boriad*	(b) 25,500	..
	3. Shunor*	(a) 16,000	..
	4. Agar*	(a) 23,500	Molesalam
	5. Sindhiapara	(a) 5,300	..
	6. Varamula*	(a) 16,000	..
	7. Alwa	(a) 8,800	..
RATHOD (7)	1. Vajirra*	(a) 38,000	Molesalam
	2. Chorangla	(a) 16,000	Hindu
	3. Nangam	(b) 3,000	Molesalam
	4. Vasan Sovada	(a) 8,000	..
	5. Bihora	(a) 2,000	..
	6. Dudhpur	(a) 700	..
	7. Vohra	(a) 9,700	..
CHAVDA (2)	1. Bhilodia	(b) 17,000	Hindu
	2. Rampura	(b) 12,200	..
KORI (3)	1. Jiralkamsoli	(b) 10,000	Molesalam
	2. Chudesar	(b) 3,600	..
	3. Nalia	(b) 1,000	..
DAIMA (4)	1. Virpur Vasan	(b) 34,000	Molesalam
	2. Uchad*	(a) 24,000	..
	3. Rengam	(b) 2,500	..
	4. Vadia Virampara	(a) 750	..
SOLANKI (1)	1. Nasvadi*	(a) 18,000	Hindu
PARMAR (1)	1. Palasni	(a) 9,500	Hindu
PADHIAR (1)	1. Pan Talavdi	(a) 6,200	Hindu
Approximate Total..		3,69,650	

The whole of this territory was under the supervision of an Agency Thandar and was protected by the Agency Police.

NOTE : Those marked (a) had the custom of primogeniture, while those marked (b) had practice of sub-division.

* These were granted petty jurisdictional powers.

In 1908 Mandwa and Vajira were put under the direct supervision of the District Deputy Political Agent, Rewa Kantha, and subsequently classified as Fifth Class Ruling Chiefs.

The Headquarters of the Thana was at Wadia, a village on the northern bank of the Narmada. The largest town in this Mewas was Chandod, which was jointly owned by the Gaekwad and the Rana of Mandwa, a position which was source of great friction and trouble. After the integration, the ruler accepted the Zamindari agreement.

PANDU MEWAS

The Pandu Mewas estates seem to have been originally peopled by Kolis. According to *Bombay Presidency Gazetteer*, the Kolis say that they sprang from Yauvanashva and remained for many generations on the sea shore in the deltas of the Indus. At length, by the goddess Hinglaj under the leadership of Sonang Med, they were brought to the Nal. Sonang Med had twelve sons, each of whom founded a clan. In course of time they settled in Gujarat on the banks of Mahi. Raja Karan Solanki (1064-1094 A. D.) came into clash with them and checked their thievish habits.

His success was only temporary and thereafter whenever the central power was weak, the Mahi Kolis had played havoc. Towards the close of the fifteenth century, particularly after the break up of their centre at Champaner, many of the Rajputs driven out of the fertile lands, fell back on the rugged Mahi banks, and drove the Kolis out of their villages. Bhadarwa and Dhari fell to the Solankis, Itvad and Varnoli to the Rathods, and Chhaliar to the Chauhans. Probably at the same time some Musalmans, calling themselves Khanzadas settled at Pandu, and captured four or five villages.

Being able to spread their power and harass the country during the decline of the Ahmadabad dynasty (1536-1583 A. D.), they were again brought to order under the Mughals and though the troops had from time to time to be sent against them, their power in no way spread, till, early in the eighteenth century, the quarrels of its officers and Maratha attacks loosened the Mughal rule. During the rest of the eighteenth century all these communities, whether under Koli, Rajput or Musalman leaders, attacked the rich Vadodara plain villages and levied large tributes under some of the many forms of blackmail. The estate of Bhadarva, the two small estates of Raika, Dorka and Anghad and the larger property of Umeta in the West with other States, were placed under the protection of British Officer.

The remaining estates were placed under British protection under the convention of 1825. The Pandu Mewas estates formed five groups, the chiefs of which were (1) Rajputs, (2) Barias of mixed Koli and Rajput descent, (3) Kolis (4) Patidars and (5) Mahomedans. The following is a list of the Pandu Mewas estates arranged according to the castes of their chiefs.

Caste 1	State 2	Revenue Rs. 3
RAJPUTS (10)		
WAGHELA	.. 1. *Bhadarwa	.. (a) 55,000
SOLANKI	.. 2. *Chhaliar	.. (a) 12,000
"	.. 3. Vakhtapur	.. (b) 1,400
"	.. 4. Rajput	.. (a) 600
"	.. 5. Dhari	.. (b) 4,350
PARMAR AND MARATHA	.. 6. Raika	.. (b) 4,000
RATHOD	.. 7. Itwad	.. (b) 1,400
"	.. 8. Moti Varnoli	.. (a) 750
"	.. 9. Nani Varnoli	.. (a) 500
WAGHELA	.. 10. Poicha	.. (b) 1,600
BARIAS (7)		
PADHIAR	.. 1. *Umetha	.. (a) 53,800
PARMAR	.. 2. *Sihora	.. (a) 30,700
"	.. 3. Kanoda	.. (b) 2,300
"	.. 4. Varnolinal	.. (b) 1,230
"	.. 5. Nahra	.. (b) 75
"	.. 6. Jankha	.. (a) 450
SOLANKI	.. 7. Amrapur	.. (b) 500
KOLIS (7)		
"	.. 1. *Anghad	.. (b) 8,000
"	.. 2. Mevli	.. (b) 6,500
"	.. 3. Gotardi	.. (b) 700
"	.. 4. Kasla Pagina Muvada	.. (b) 300
"	.. 5. Moka Pagina Muvada	.. (b) 400
"	.. 6. Gothda	.. (b) 4,500
"	.. 7. Jesar	.. (b) 450
PATIDARS (1)	.. 1. Dodka	.. (b) 3,600
MAHOMEDANS (1)	.. 1. Pandu	.. (b) 4,000
Total		1,99,105

* These were granted jurisdictional powers.

NOTE : Those marked (a) had the custom of primogeniture while those marked (b) had the practise of sub-division.

The whole of this territory was, like the Sankheda Mewas, under the supervision of an Agency Thanadar and was protected by the Agency Police, with the exception of the States of Bhadarwa and Umetha, which were not under the Thanadar and had their own separate police and jurisdiction. The Thakor of Bhadarwa enjoyed the rank of a 4th Class Chief and exercised the powers of inflicting 3 years' rigorous imprisonment and fine upto Rs. 5,000 in criminal cases and hearing civil suits upto the value of Rs. 10,000, while Umetha was in the 5th Class with the power to inflict rigorous imprisonment for 2 years and fine upto Rs. 2,000 and to hear civil suits upto Rs. 5,000. After the integration, the rulers accepted the Zamindari agreement.

The Chiefs of Pandu Mewas entered into agreement with British Government in 1812. The agreement entered into by the Thakors of Bhadarwa, Umetha, Angadh, Dodka and Rayka consisted of security bond of 16 articles. These articles related to the maintenance of peace, management of lands and taluka in obedience to Government, payment of dues of Ghasdana, Jamabandhi, Khichri and other lawful demands, stoppage of quarrels, submission of deailed account of dues to Government, no maintenance of foreigners, stoppage of smuggling of opium without a *parwana* from Government, etc.

SANKHEDA AND PANDU MEWAS SETTLEMENTS

The chiefs of Sankheda and Pandu Mewas entered into agreements with Gaekwad and British Governments. The agreement entered with the estates of Pandu Mewas has been described previously. A *Fael Zamin Bond* was taken by J. P. Willoughby for the Gaekwad Government from Bajee Daima, Vajao Daima, Mewasses of Tilakwada on 18th March, 1825. The Bond consisted of seven articles. According to the provisions of the articles, the Jamadars of the estates were to reside in the country in the manner of ryots and transact their business in an equitable way. They were prohibited from committing any depredation or making disputes with any one residing in the districts of Gaekwad Government, Honourable Company of Rajpipla, Chhota Udepur, Gad or any other talukdar. They were required to pay revenue dues on account of the villages of Tilakwada belonging and were also expected to pay according to the custom of the district the levies put upon Uparwar. They renounced their claim for the Giras and agreed to abide by the arrangement made for the repayment of their sums. The restoration of villages and lands unjustly possessed by them was also agreed upon. They also agreed to refrain from associating themselves with the rebels and disturbers of the public peace of the districts of the Gaekwad, Company, Rajpipla and other talukdars. To satisfy the Government for the due performance of above written articles, Bajja Daima agreed to reside at Vadodara for a period of five years.

A memorandum from the Gaekwad Government gave a list of the Mewasi Jamindars classified into five districts :

- “ 1. The parganah of Sihor contained Sihor and the three Mandwa towns, Mandwa, Nanderia and half the town of Chanod.
2. The parganah of Sankhaira, Naswari, having twelve towns and four villages dependant, and Agar consisted of Agar and Seisana.
3. The parganah of Tilakwada contained nine towns, viz., Wajiria, Oochad, Chureswar, Palasani, Para, Boloria, Nallia, Balodra, Seeral.
4. The parganah of Sowly (Savli).
5. The ten Girasia villages termed Das Gam.”

The five articles decided the rights of Zamindars in regard to the manner of payment of revenue and possession of villages. In settling the revenue from the Mewasi villages an average of the last ten years, including *kharaj*, *babits*, etc., was fixed for a perpetual tribute. The manner in which Mehvasi zamindar was to give yearly security to Kamavisdar to pay revenue was also laid down. The Thakor town belonging to Zamindars of Wajiria, Sinor, Mandwa, Agar, Naswadi, Palasani and Dasgam were to pay revenue through the medium of Resident every year to Kamavisdar. The smaller Mewas villages were to pay revenue as fixed by settlement to Kamavisdar. The articles regarding arrangement for protection of villages were entered with Mewasis. Some of the important articles indicate that the established claims of Jamindars were to be paid to Government. In return for protection money given to him he was to protect the village and if the village sustained injury he was to make good the loss according to the local custom. The practice of carrying on private wars was to be discontinued. They were also continued in undisturbed possession of Wanta rights.

POPULAR UPSURGE IN MEWAS ESTATES

At the time of integration, Estates of Sankheda Mewas and Pandu Mewas witnessed unprecedented popular upsurge. Shri Manibhai, a popular *Jana Sevak* carried on incessant struggle and had conducted three *Khedut Parishads* prior to 1947. At the time of Independence he decided to conduct one of the *Khedut Parishads* on the bank of the river Orsang near Chandod under the Presidentship of Shri Chhotubhai Purani. It was resolved that civil and criminal rights of jurisdictional and non-jurisdictional States and Estates of Sankheda Mewas and Pandu Mewas should be abolished. It was also resolved that the Government of India should be requested to place Mandwa in attachment. Accordingly, the Rewa Kantha Khedut Mewas Mandal had sent a telegram to the Government of India, New Delhi. After Independence

on account of co-operation of Shri Motibhai, a Khedut leader of Kantharpura of Mewas, *Khedut Sabha* was convened for the first time. A resolution demanding an end to the atrocious activities of Thakors of Mewas was passed. In another resolution it was decided that no *Khedut* should pay more land revenue than what had been decided in the case of Thakor of Vasan-Virpur. Similarly, no Thakor should also ask for more than prescribed land revenue. This meeting of Kantharpura awakened the cultivators and peasants of Mewas territory. However, some of the Thakors still carried on their activities in defiance of popular will. Thus, Thakor of Wajiria gave two villages to his princes in perpetuity (or as *Jiwai*). The Thakor or Uchad harassed the ladies. Similarly the Thakor of Vasan-Virpur also did not lag behind despite the fact that he was reprimanded by the Government.

In this year another *Khedut Sabha* took place at the Sompura village of Shanor State. Resolutions on the lines of Kantharpura meeting were passed. However, the Thakor of this State declared in the meeting that the cultivators will be assessed at the rate of Government lands. The declaration of this Thakors benefited cultivators to the extent of Rs. 6,000.

During this period the administration of Mandwa Thakor came in for severe attack. The quantity of rice received by the Darbar for his *etsate* was sold to merchants in the black market. In protest, the workers under the leadership of Shri Manibhai went on fast in front of the bungalow of Karbhari. The Agency was also informed of this scandal. Soon after this the Karbhari was dismissed.

Next was the turn of Wajiria State. The Thakor of that State gave two villages to Bhayats in perpetuity. This made the peasants very angry. Moreover the cultivators of the State groaned under innumerable cesses and taxes. A meeting was conducted under the Presidentship of Bhiksing at Utavali village. In this meeting Shri Punambhai Patel and others of Chandod put on the caps of Arzi Hakumat and started propaganda. Wherever the workers went, the people of the villages welcomed them. Shri Punambhai and his party visited several villages of Wajiria State and awakened the people. Another meeting took place at Jalodara village and a resolution declaring an ultimatum on Thakors was passed. In the meeting it was also stated that the Resident of Vadodara should take over the administration of Wajiria State. The cultivators were exhorted not to pay land revenue. The seeds of a great struggle in Mewas were now sown.

On the last day of the year 1947, an officer from Vadodara State visited Wajiria State and started negotiations with the popular leaders and the officers of that State. The popular leaders demanded a ban on the atrocious activities of Bhayats. The Thakor, however, pleaded his inability. After some time a conference of workers under the leadership of Devarbhai met

under the auspices of the Gujarat Prantik Samiti. It was decided therein that all the States should merge in the Bombay State. This gave inspiration to the leaders of Mewas State. The Thakor of Vajiria during this period experienced innumerable difficulties on account of 'no tax' movement. The cultivators, Karbhari, Aval Karkoon and Talati left the State as they did not receive their salary and the Thakor himself was in debt to the tune of Rs. 1 lakh. A meeting of popular workers took place at Jalodara village under the Presidentship of Shri Narendra Oza, in which it was decided that civil disobedience movement should be continued. After some time, an officer of the Vadodara State took over the administration of Vajiria.

The popular struggle of Sankheda Mewas estates had its impact on the Sihora and Chhaliar States of Pandu Mewas estates also. A meeting of Praja Parishad in both these States took place under the Presidentship of late Shri Indulal Yajnik. In this meeting it was demanded that land revenue should be reduced and responsible Government should be established.

It was now decided that a meeting should be called of 36 Thakors and the entire territory of Sankheda Mewas should be merged in the Bombay State. A conference was, therefore, arranged at Vajiria village in November, 1948. Many Resolutions including the demand of merger of Sankheda Mewas territory into the Bombay State were passed. They were sent to Vadodara. After this conference, meetings were also arranged at Virpur, and Vajiria. However, in the month of June, 1948 it was announced that the territory would be merged in the Bombay State and accordingly the estates were merged.

THE FREEDOM MOVEMENT

The analysis of history of Freedom Movement of the Vadodara State is a difficult and a complex process. The freedom movement of the State falls into 4 distinct periods, viz., (1) Freedom Movement of 1857, (2) Period between 1885 to 1920, (3) Vadodara Rajya Praja Mandal and (4) Merger of the State. The relations of the Vadodara State with British have already been analysed previously. It would, therefore, be pertinent to examine four periods of freedom movement.

(1) Freedom Movement of 1857

The State of Vadodara was affected by the freedom movement of 1857. In the trying year 1857 Maharaja Khanderao Gaekwad of Vadodara according to article 8th of the Treaty of 1817 (supplement to the Definitive Treaty) promised unstinted support to the British and placed all the resources of the State at their disposal to quell the disturbances in Gujarat and outside his territory.

It may be pointed out that Vadodara was quiet in comparison with other districts of Gujarat. Yet in all fairness it must be stated that it was not quite passive. As it was a seat of Maratha ruler, there were naturally some sympathisers of Nana Saheb at the Court of the Gaekwad. Furthermore there were disturbances in the districts of the Gaekwad throughout Gujarat. The district of Vadodara was not an exception to this. It was doubted by the British that the Gaekwad himself inspired the rebels against the British Government.

Captain Hodgson, the Superintendent of Police at Surat, doubting the fidelity of the Gaekwad, wrote on 10th July, 1857 to Major Crawford, Brigadier Major at Vadodara, "I feel persuaded that all the Musalman Sardars of Baroda with their followers are cognisant of the rebellion and will join it and will most probably also be backed by the Gaikwar himself who will follow the example of the heads of the Maratha States, i.e., Gwalior and Indore."

The same officer stated that he had arrested from Surat, a Bengali named Daiker Babu alongwith his other companions while they were returning from Vadodara. Among the letters seized from them, three were of the most suspicious nature. They were treasonable and revealed the interview of the Bengali Babu with the confidential Hindustani Munshi of the Gaekwad. Hodgson doubted that they had planned to start the rebellion in Vadodara with the help of the Munshi backed by the Gaekwad himself.

In his letter dated 22nd August, 1857 to Anderson, the Secretary to the Government of Bombay, the Collector of Ratnagiri mentioned that the Gaekwad was raising a new levy not to assist but to turn against the British at the right moment. He (the Gaekwad), had secretly entered into agreement with Bhils and Kolis against the British. Therefore, a close watch was to be kept on Gaekwad.

The King of Kolhapur was the son-in-law of the Gaekwad of Gujarat. It is said that he sympathised with the mutineers. It was alleged by some British officers that he wanted to raise revolts at Kolhapur as well at Vadodara with the help of his father-in-law. Only four or five days after the outbreak, a Subedar caught a Muslim gentleman who had come from Vadodara with a message of enquiry as to the mutual co-operation and promise of support. The messenger was at once tried, convicted and executed. The daughter of the Gaekwad, coming from Vadodara to join her husband, with a considerable retinue had passed through Poona on her way to Kolhapur. It was reported to Jacob, Special Political Commissioner that Rani's party was holding talks with suspected persons at Poona for mutual help. On the basis of this report G. L. G. Jacob, Special Political Commissioner, Southern Maratha country directed Captain John Schaneider to search the party. On observation Schaneider saw a man of the party

chewing a piece of paper. It was taken out and when read it was found that it contained a highly treasonable matter from certain parties of Poona to the confidential attendant of the Rani's husband. But on enquiry it was discovered that the Gaekwad was not involved in that matter and the Rani was not concerned with the plot. The British Resident at Vadodara was also convinced of the fact that the Gaekwad was not faithless to the British Government. It was entirely because of the support of Maharaja Khanderao of Vadodara that the Government was able to preserve peace in Gujarat.

In spite of the pro-British attitude of the Gaekwad conspiracies at Vadodara went on to end the British rule in Gujarat. It has already been observed that a well-thought out plan was made at Ahmadabad and Vadodara to dethrone the Gaekwad and abolish the British rule from Gujarat. The ring leaders of the conspiracy were Govindrao (Bapu Gaekwad), a half brother of the Gaekwad, his brother-in-law, Maganlal Bania of Patan and Sheth Nihalchand Zaveri of Vadodara. They aimed to capture Ahmadabad first and then had a plan to seize Vadodara. But the plot failed as one of the plotters informed the Gaekwad of the conspiracy when the latter was celebrating the news of the fall of Delhi.

After the failure of the plot though strict precautions were taken to curb all rebellious activities, incidents inspired by other forces continued to occur at Vadodara. A sepoy deserter of 66th Regiment N. I. under the Gaekwad hatched a plot with the help of some others to kill the European officers at Vadodara. Another sepoy named Ram Narayan instigated the native soldiers to take part in this conspiracy. The Thakors of Khanpur, Partappur and Bhadarava also inspired the rebels to achieve their aim. But on account of timely information and precautionary steps, both the sepoys along with the other three were arrested before they could achieve their aim. A paper was discovered from the sepoy deserter of 66th Regiment that all Europeans in Gujarat were to be murdered.

The sepoy deserter was blown away from the mouth of the gun and the remaining four were executed. The Thakor of Bhadarava along with some others was also blown away for instigating and assisting the plot.

The last stir at Vadodara was around when Tatia Tope arrived at Chhota Udepur, only at a distance of 50 miles from Vadodara. On capturing Chhota Udepur on 1st December, 1858, Tatia planned to reach Vadodara to get aid from the Gaekwad and the sympathisers of Nana Saheb at the court of the Gaekwad. There was an alarm at Vadodara. The armies of the British Government and those of the Gaekwad were arranged on Vadodara-Chhota Udepur road to stop the entry of Tatia Tope into Vadodara. All the troops in the areas around Vadodara were placed on alert. Suspicious characters from Vadodara were at once arrested. As Tatia

Tope was defeated at Chhota Udepur by Parkes, he fled towards north. As a result, the turmoil at Vadodara subsided. Meanwhile forces of rebellion were weakened all over the country.¹ Shortly the rebellion died out. The district once again experienced the impact of revolutionary movement in the first decade of this century. The events are described below :

(2) *Period Between 1885-1920*

Sayajirao III ruled Vadodara State during this period. He had introduced number of educational and social reforms in the State with the help of Romesh Chandra Dutt. Sayajirao was a true patriot and so there was constant friction between British Government and him. In 1898 in the annual session of Congress Sarvashri Harilal H. Dhruv and Rao Bahadur Madhavlal two judges of his State were sent as representatives of Bharuch and Surat respectively. The British always viewed the Vadodara State suspiciously on account of the revolutionary activities of Arvind Ghosh and other officers of the State. An acrimonious correspondence was carried on in 1904 between the British Government and the State when Sayajirao went abroad. Eyebrows were raised at the time of establishment of Dharasabha in 1907 and the speech of Maharaja in 1912 in the Dharasabha. When British Government tried to interfere in respect of the case of one officer, State objected to it on the ground of interference in internal administration. The Ruler also refused to abide by the advice of Resident during his absence. The financial contribution for raising army of the State was also refused to Lord Curzon on ground of Treaties of 1802 and 1805. The British Government, however, forced the Ruler to tender apology for not having properly paid the respects to King George V at the time of Darbar.

Revolutionary Activities—Along with the growth of Swadeshi movement and bonfire of foreign goods, there arose a movement in Bengal and Maharashtra which has been aptly called 'Bomb Movement'. The professor of English, Shri Arvind Ghosh of Baroda college gave impetus to the movement. Arvind Ghosh and his younger brother Barindra Ghosh came to Vadodara in 1902. They came into contact with a Saint called Vishnu Bhaskar who lived on the banks of river Narmada. They had a profound desire to meet Swami Brahmanand, one of the freedom fighters of the Movement of 1857. But he was dead long before. Barindra Ghosh in the company of Chhotubhai and Ambubhai travelled through the length and breadth of Gaekwad's territories. They derived inspiration from Arvind Ghosh's book entitled 'Bhavani Mata Mandir' wherein instructions, regarding termination of the British rule and establishment of Independent Indian State after repelling the British ruler, were given.

1. DHARAIYA R. K. (DR.), *Gujarat in 1857*.

2. RAJYAGOR S. B. (DR.), *Gujaratno Rajkiya ane Sanskrutik Itihas*, Published by University Book Production Board, Gujarat State, (1974).

Shri Narsinhbhai Patel took particular care to publish the literature pertaining to manufacture of bombs in Gujarat. Shri Mohanlal Pandya of Kathlal, and Shri Becharadas Pandit and Punjabhai Vakil also participated in this movement. A Gangnath Vidyalaya was established on the bank of river Narmada. Shri Keshavrao Deshpande, a close associate of Arvind Ghosh established it by deriving inspiration from 'Bhavani Mata Mandir'. On account of this activity he was forced to resign from service by Gaekwad Government. The institution started on 6th May, 1907 was closed in 1911 as its activities were viewed unfavourably by the British. They during this period brought pressure upon Gaekwad to terminate the Services of a professor of 'Baroda College' called Dayabhai Purohit. In all 22 persons were prosecuted by the State for carrying out seditious activities against the State. During this period a branch of 'Abhinav Bharat' of Vir Savarkar was also established at Vadodara. Training in musketry horse riding and commanding the troops was imparted secretly.

(3) *The Vadodara Rajya Prajamandal*

The Vadodara Rajya Prajamandal which was founded in 1916 consequent upon the meeting of the workers of State under Presidentship of Shri Hargovanddas Kantawala ventilated the grievances of the people of the Vadodara State in social and political matters. The constitution of the Praja Mandal was drafted by a committee of 17 members appointed from four Prants of the State. Though its methods were passive, non-violent and co-operative with the State authorities, they were dynamic. Like the Indian National Congress, the annual sessions of the Prajamandal were held at different places in the Vadodara State territories. Its policies and working had great impact on the progressive activities. The State of Vadodara did not take serious view of the activities of Prajamandal till it had confined its activities to Vadodara and other Cities. But as soon the Mandal spread its activities to rural areas, the State's attitude stiffened. Sardar Patel referred to this attitude of the State in his speech at annual session of Mandal at Bhadran on 28th October, 1936.¹ The Marathi newspapers 'Vividh Vrut' and 'Jagruti' started a campaign against Sardar as soon as he was selected as President of Praja Mandal. They went to the extent of describing Sardar Patel as dictator and anti-democratic. These papers supported the State's policy. Sardar Patel in this hostile environment took the leadership of the Praja mandal. He criticised State Government for keeping a preserve for hunting near Makarpura which was a source of annoyance and torture to farmers. He also explained and elucidated as to how the liquor policy of Vadodara State interfered with prohibition Policy of the Government of Bombay and finally in conclusion brought out the fact how the progressive

1. PARIKH N. D., *Sardar Vallabhbhai*, Part II, (1932), p. 399.

State had retreated. The address stirred the hearts of workers and a new spirit was infused in them. But the Pro-State papers launched vicious attacks on Sardar Patel. The anti-national attitude of the State was revealed when Sardar Patel was invited by Vadodara city and the district for presentation of a purse and for receiving public honour. All possible attempts were made to incite Marathi speaking people by distributing anonymous leaflets. The riots broke out on 20th February, 1939 and the meeting could not be arranged. However, the meeting was kept at Alkapuri on 21st February, 1939 in which Sardar was presented a purse containing Rs. 25,001. The purse was returned back for the activities of Mandal. The Mandal with the aid of collection and the sum presented to it by Sardar purchased the building in which its office was functioning on rent at the cost of Rs. 1,80,000 and named it as Sardar Bhavan.

In the Dharasabha Elections of 1940, Sardar Patel had given guidance and many of the Praja Mandal candidates were elected. However, with the commencement of second world war the State's problem was relegated into background and did not receive much attention at the hands of A. I. C. C.

The Praja Mandal used to send its members to participate in Satyagraha in British territories. In 1940 four persons viz. : Shri Nanubhai V. Patel, Shri Gordhanbhai Patel, Shri Subhasbhai Sutaria and Shri Kanubhai Bhatt were sent. In 1942 movement, the people of Vadodara State participated whole-heartedly. With the beginning of this movement the State arrested 980 persons including the president. In all 11 persons died.

The Mandal held twenty one sessions to arouse national awakening in the State, out of which five sessions were held in the district. The details are as follows :

Sl. No.	Session	Year	Place	Name of the President
1	2	3	4	5
1.	Second Session	1918	Vadodara	Shri Vitthalbhai Patel
2.	Third Session	1922	Vadodara	Shri Harilal Govindji Parikh
3.	Seventh Session	1928	Vadodara	Shri Darbar Gopaldas Desai
4.	Tenth Session	1932	Dabhoi	Shri Vamanrao Ramchandra Tamhankar
5.	Twelfth Session	1935	Vadodara	Shri Abbas Taiyabjee

MERGER OF VADODARA STATE

Soon after the transfer of power in 1947, one of the major challenges that faced the leadership of an independent India was that of securing integration of the States. The story of the merger of Vadodara State is very interesting. The Ruler defeated the scheme of reactionary rulers by declaring that he would participate in the Constituent Assembly. Shri B. L. Mitra gave a fitting reply to Korfield, an officer of Political Department by saying that State of Vadodara is not in need of an honest or a dishonest broker. Vadodara was the first State in 1947 to send its representatives to the Constituent Assembly. He also gave a lead to the other rulers by agreeing shortly before the transfer of power, to sign the Instrument of Accession. But much of the merit was taken away by his subsequent action in bargaining about his own position at a time when the country was in difficulties. In September, 1947 the situation in Kathiawar was causing concern to the Government of India by reason of the attempted accession of the Nawab of Junagadh to Pakistan. The rulers of the Kathiawar States co-operated whole-heartedly with the Government of India. But when Sir Pratap Singh was approached, he laid down certain conditions which, on the face of it, were completely unacceptable.²

The extravagance of Sir Pratap Singh coupled with his frequent absences from the State and his choice of Advisers who had nothing in common with the people led to a serious agitation for responsible Government in the State. The popular leaders met Sardar Patel in this connection and made it clear that the entire responsibility for the administration of the State should be taken away from Sir Pratap Singh. At this stage Sardar Patel advised Sir Pratap Singh to establish responsible Government forthwith with the Chief Minister responsible to the Dhara Sabha of the State and that as an interim measure Dr. Jivraj Mehta might be appointed as the Chief Minister. The Ruler gave a solemn undertaking that he would abide by the advice given by the Sardar but the reforms which he announced in April, 1948, after considerable delay and under the pressure of public opinion fell far short of expectations and were nothing more than a democratic facade to cover the Ruler's personal autocracy. Apart from the bitterness caused by the delay in the implementation of the announcement, the text itself differed materially from that agreed upon after prolonged discussions with the Sardar, Darbar Gopaldas and Officers of the State Ministry. The acrimonious correspondence that proceeded the appointment of Dr. Jivraj Mehta as the first Diwan of the interim Ministry, did not provide a congenial

1. (i) HANDA R. L., *History of Freedom Struggle in Princely States*, (1968).
 (ii) PHADNIS URMILA, *Towards the Integration of Indian States*, (1968).
 (iii) 66th Session, *Indian National Congress* Sorrento Bhavnagar, January, 1961, Part-III, pp. 115-116.
2. MENON V. P., *The Story of the Integration of the Indian States*, p. 417.

climate for the growth of democratic apparatus in the State. In August, 1948, the Dhara Sabha considered the situation arising out of the financial dissipation of the Ruler and passed resolutions demanding his abdication and requesting the appointment of a committee to examine his financial transactions. After discussing with Sardar, Dr. Jivraj and the President of the Vadodara Congress, the Ruler agreed to grant complete responsible Government without any reservations on the 25th August, 1948. The Ruler issued a proclamation embodying the arrangements agreed upon.

Even though responsible Government had been ushered in Vadodara and the administration was fairly progressive, the arrangements did not satisfy the aspirations of the people who wanted that all the Gujarati speaking people should be united under one administration. There were also administrative difficulties owing to the fact that Vadodara consisted of three isolated blocks in Gujarat apart from its possessions in Kathiawar, viz., Amreli and Okhamandal. This lack of geographical cohesion enhanced the administrative difficulties, even though it had the resources to maintain an efficient administration.

After considerable discussion, and lot of persuasion, Maharaja Pratap Singh willy-nilly agreed to merger of the State in Indian Union.

In December, 1948, the Ruler expressed his readiness to accept the advice of the Sardar and the States Ministry to merge his State with Bombay, on the 28th January, 1949, the 'Baroda Executive Council' (which, in accordance with the announcement of Sir Pratap Singh dated 11th April, 1948, consisted of popular Ministers) passed the resolution endorsing the decision of the Ruler to merge the State with Bombay. On 31st January 1949, Sir Pratap Singh announced his decision in regard to the merger of the State with Bombay. The merger agreement was signed on the 21st March, 1949, and the administration of the State was taken over by Bombay Government on 1st May, 1949.

ANNEXURE I

Guikwar No. LXXII**TREATY WITH ANUND RAO GUIKWAR, 1805**

Definitive Treaty of General Defensive Alliance between the Honourable English East India Company on the one part, and the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor and his children, heirs and successors on the other, settled by Major Alexander Walker, Resident at Baroda, having full powers from the Government of Bombay, which is, in like manner, authorized by His Excellency the Most Noble Richard Marquis Wellesley, knight of the most Illustrious Order of St. Patrik, one of His Britannic Majesty's Most Honourable Privy Council, Governor General in Council, appointed by the Honourable the Court of Directors to direct and control all their affairs in the East Indies.

Whereas various agreements have been concluded between the Honourable Company on the one part, and Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor on the other, all tending to improve and increase the friendship and alliance between the contracting parties, viz., a convention dated at Cambay, the 15th March, 1802, settled by the Governor of Bombay on the part of the Honourable Company, and by Raojee Appajee, Dewan on the part of Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor; an agreement, dated at Cambay, the 6th June, 1802, settled by the Governor of Bombay on the part of the Honourable Company, and by Raojee Appajee, Dewan, on the part of Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor; and an agreement made by Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor with Major Alexander Walker, Resident at Baroda, on the part of the Honourable Company, dated at Baroda, the 29th July, 1802; and whereas it is desirable to consolidate the stipulations of all these separate engagements with one definitive Treaty, and further to improve the state of alliance of the contracting parties, in like manner as has been applied for by the aforesaid Raojee Appajee, in his letter of the 10th of Suffer (or 12th June, 1803), desiring that the present engagement between the Honourable Company and the Guikwar State may be drawn up in terms consonant to those employed in the Treaty of Bassein between the Honourable Company and His Highness the Peishwa, the said Company and the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor do hereby accordingly agree to the following Articles framed for that purpose :

Source :

ATCIBISON C. U., *Collection of Treaties, Engagements and Sumnuds*, Vol. IV, (1804).

Article 1

All the stipulations of the engagements heretofore made between the contracting parties, and above recited, viz., on the 15th of March, 6th June, and 29th July, 1802 are hereby confirmed, and are to bind the contracting parties, their heirs and successors, for ever.

Article 2

The friends and enemies of either party shall be the friends and enemies of both; and if any power shall commit any act of unprovoked hostility or aggression against either of the contracting parties, or against their respective dependants or allies, and after due representation shall refuse to enter into amicable explanation, or shall deny the just satisfaction which the contracting parties shall have required the contracting parties will proceed to prosecute such further measures as the case shall appear to demand.

Article 3

Whereas, in conformity to the agreements heretofore made between the Honourable Company and the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, a subsidiary force of two thousand men was subsidized, and inclusive of the half augmentation of the subsidiary force first fixed upon, the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor agrees to receive and the Honourable Company to furnish, a permanent subsidiary force of not less than three thousand regular native infantry, with one company of European artillery, and their proportion, viz., two companies of gunlacars, with the necessary ordinance, and warlike stores and ammunition, which force is to be stationed in the territories of the said Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor.

Article 4

The subsidiary force will at all times be ready to execute services of importance, such as the protection the person of Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, his heirs and successors, the over-awing and chastisement of rebels and excitors of disturbance in his territories and the due correction of his subjects or dependants who may withhold the payment of the Sircar's just claims; but it is not to be employed on trifling occasions, nor, like sebandy, to be stationed in the country to collect the revenue. One battalion of these forces, however, or such a proportion of them as the performance of the foregoing services may require, will proceed to Kattyawar when there may be a real necessity for it; but the English Government, whose care and attention to all the interests of the Guikwar State cannot be doubted, must remain the judge of this necessity.

Article 5

In order to provide the regular payment of the whole expense of this subsidiary force, Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor has ceded, by the agreements aforesaid, viz., dated the 15th March, 6th June, and 29th July, 1802, and 2nd June, 1803, districts and other funds, of which a Schedule (A) is annexed to this Treaty, of the yearly net value of Rupees 11,70,000. This cession is confirmed by this Treaty, and Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor hereby cedes the districts of which the Schedule is annexed, with all the rights of sovereignty thereof, and all the forts which they contain, in perpetuity, to the Honourable Company.

Article 6

The districts of Chowrassee, Chickly, Surat, Chouth, and Kaira have been ceded to the Honourable Company by Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor as a proof of his friendship, and as a testimony of his sense of the benefit which he has received from his alliance with the Honourable Company's government. The cession of these districts is confirmed by this Treaty, and Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor hereby cedes the districts above mentioned, with all the rights belonging to the sovereignty thereof, and all the forts which they contain, in perpetuity, to the Honourable Company.

Article 7

Whereas the Honourable Company have, at different periods, assisted Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, both from their own funds and those of bankers, with advances of money, a particular account of which, as well as of the funds assigned for the payment of the same, is contained in the Schedule annexed, marked B, it is hereby agreed that the full amount of the rissud of the districts therein named, according to the provisions in the eighth Article of the agreement of the 29th July, shall be collected on account of the Honourable Company, and the persons therein referred to, until these debts and interest due upon them shall be fully paid; and for the past or any future advances which the Company's government may make to that of the Guikwar, mehals shall be assigned as their security.

Article 8

Grain, and all other articles of consumption and provisions, all sorts of materials for wearing apparel, together with the necessary numbers of cattle, horses, and camels required for the use of the subsidiary force shall be

treated in all respects in a manner suitable to the importance of the trust place in them and the dignity of the British Government. In like manner shall the officers of the Guikwar Government meet with similar consideration and respect from the Honourable Company. In consideration, also of the good-will and friendship which has so long happily subsisted between the Honourable Company and the Guikwar Government, such goods and articles as may be *bona fide* required for the private use or consumption of that family, or of the ministers, shall be allowed to be purchased at Surat and Bombay, and to be sent from thence free of duties, on being accompanied by a passport from the Resident at Baroda.

As the Deccan is the native country of the Mahrattas, who inhabit or serve in Guzerat, such of this nation as may be in the Guikwar service shall be allowed to pass and repass freely, with their families through the Honourable Company's territories.

It is expressly understood that the admission of this Article is not to sanction, or in any shape to authorize, the transit of merchandize or of prohibited goods.

Article 9

The Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor hereby engages that he will not entertain in his service any European or American, or any native of India, subject of the Honourable Company, without the consent of the British Government; neither will be Company's government entertain in their service any of the Guikwar servants, dependants, or slaves, contrary to the inclination of that State.

Article 10

Inasmuch as by the present Treaty the contracting parties are bound in an alliance for mutual defence and protection, Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor engages never to commit any act of hostility or aggression against any power whatever; and in the event of difference arising, whatever adjustment the Honourable Company's government, weighing matters in the scale of truth and justice, may, in communication with the Guikwar Sircar, determine, shall meet with full approbation and acquiescence.

Article 11

Whereas there are certain unfinished transactions between His Highness the Peishwa and Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor,

and there exist certain papers of accounts which are unadjusted, Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor doth hereby agree that the Honourable Company's government shall examine into and finally adjust the said transactions, papers, and accounts, and the demands resulting therefrom and Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor binds himself, his heirs and successors, to abide by such adjustment as the British Government shall accordingly determine. Further, in respect to these unsettled pecuniary affairs existing with the governments of His Highness the Peishwa and the Guikwar, it behoves the latter to pose a similar faith in the British Government as the Peishwa, who has agreed to abide by the adjustment of these concerns.

This settlement shall be effected by the Honourable Company after taking into mature consideration the impoverished state of the Guikwar finances; and the latter government entertain a full conviction that no oppressive demand will be enforced under the Company's mediation.

Article 12

If, notwithstanding the defensive nature of the agreement between the contracting parties, and their desire to cultivate and improve the relations of peace with all the powers of India, war should unfortunately break out, it is agreed that with the reserve of a battalion of native infantry to remain near the person of the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, of such proportion as may appear necessary for the security of Guzerat, the residue of the subsidiary force, with their ordinance and public stores and ammunition, shall be immediately put in motion for the purpose of opposing the enemy.

The troops of the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor shall accompany the British troops to the boundaries of Guzerat in order to terminate the war. Should, however, any great exigency arise, the circumstances shall be mutually considered, and the best means in the power of the contracting parties pursued to terminate the same.

Article 13

As the enemies of both States are the same, those who are in opposition to the Guikwar Government, or in rebellion to it can never, while acting in this manner, be admitted to the friendship of the Honourable Company; but should Canojee Guikwar, who comes under this description, repent and submit himself, it will be advisable to allow him a suitable pension, on which he may subsist and reside at Bombay, or at any other place which may be equally safe and convenient.

Neither Canojee Guikwar nor Mulhar Rao Guikwar will have any other claim on the Guikwar Government than the pension which has been assigned to the latter, and that which may eventually be assigned to the former.

Article 14

When the subsidiary troops will take field, the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor will supply such quantities of grain and bejjarries to attend the army as the resources of his country may afford, the British Government defraying the expense thereof.

Article 15

If disturbances shall at any time break out in the Honourable Company's territories or districts bordering on those of the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, the said Maharajah Anund Rao Guikwar shall consent to the employment of such a proportion of the subsidiary force as may be requisite to quell the same; and if at any time disturbances shall break out in any part of the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor's territories, to which it might be inconvenient to detach a proportion of the subsidiary force, the British Government will, in like manner, at the requisition of the said Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor, detach such a proportion of the troops of the Company as may be most conveniently situated to assist in quelling the said disturbances in the Maharajah Anund Rao Guikwar Sena Khas Kheyl Shumsher Bahadoor's territories.

Article 16

In future the subjects of each State, who may take refuge with either, shall delivered up, if the State from which such parties shall have fled appear to have any demand of debt or any just claim against him or them; but as a free intercourse between the countries under the two governments is also intended, frivolous claims against parties resorting from their own to the other's jurisdiction are not to be preferred, and in all serious cases cordiality will be shown.

Article 17

The contracting parties hereby bind themselves to take into consideration hereafter the commercial relations between their respective territories, and to settle them in due time by a commercial treaty.

SCHEDULE A

A Statement of the funds assigned and districts, ceded, in perpetual sovereignty to the Honourable Company by Maharajah Anund Rao Guikwar Sena Khas Kheyi Shumsher Bahadoor in order to provide for the regular payment of the subsidiary troops.

The pargannah of Dholka	Rs.
.. .. .	4,50,000
„ Neryad ..	1,75,000
„ Vijapoor ..	1,30,000
„ Mattur ..	1,30,000
„ Mondo ..	1,10,000
The Tuppa of Kurreo ..	25,000
The Kimkatodra ..	50,000
Warrat on Kattywar ..	1,00,000
Rupees ..	11,70,000

(Signed) A. Walker,

Resident.

Baroda, the 21st April, 1805 A. D.

PART III

CHAPTER III

PEOPLE

POPULATION¹

Growth of Population

The population of the areas now comprising Vadodara district was 590,338 in 1901. In 1971 it rose to 1,980,065 (rural 1,376,860 and urban 603,205) recording a rise of 13.55 per cent during the last seventy years. The decennial growth of population between 1901 and 1971 for the district is given below. The slow pace of increase in the population of the district between 1901-1911 and 1911-1921 is due to famine and the out-break of plague and influenza epidemics respectively. In 1971, the population increased by 452,739 or 29.64 per cent over the population in 1961 (1,527,326) as against 29.39 per cent in the State. According to the 1971 Census, the population of the State was 26,697,475 while the population of the Vadodara district was 1,980,065 (*i. e.* 7.42 per cent). The district ranked fourth in the State according to population. The larger increase in population in recent times may be attributed mainly to the general improvement in medical and public health services available to the people and to the industrial growth after Independence.

STATEMENT III-1

Decadal Variation in Population During Seventy Years

Year 1	Persons 2	Decade Variation 3	Percentage Decade Variation 4	Males 5	Females 6
1901	590,338	..	..	308,451	281,887
1911	696,878	+106,540	+18.05	365,810	331,068
1921	754,830	+57,952	+8.32	396,456	358,374
1931	878,436	+123,606	+16.38	461,854	416,582
1941	1,045,537	+167,101	+19.02	550,637	494,900
1951	1,211,935	+166,398	+15.92	633,092	578,843
1961	1,527,326	+315,391	+26.02	801,026	726,300
1971	1,980,065	+452,739	+29.64	1,041,717	938,348

Source : District Census Handbook 1971, Vadodara District, Part X-C-I, p. 67.

1. The statistics given in this section are collected generally from 1971 Census-Reports-but in cases where the figures are not available we have given the figures from 1961 Census Reports.

Density

According to the figures supplied by the Surveyor General of India, the provisional "Geographical" area of the district was 7,788.0 km. or 3.97 per cent of the total area of the State.

Density of Population, 1901 to 1971

Year 1	Density of the State 2	Density of the District 3	Rank of the District 4
1901	46	76	7
1921	52	97	5
1951	83	156	5
1961	105	196	5
1971	136	254	5

Source :

Based on Census of India 1971, Gujarat, *Pocket Book of Population Statistics*, pp. 42-43.

The comparative study of the above table shows that the density of the population in the district is progressively increasing as compared to the density of the State. The density of population according to the 1971 Census thus comes to 254 persons per sq. km. (urban 3,313 and rural 181), as against 136 per sq. km. for the whole State. The urban density is naturally higher than the rural as the pressure of population in rural areas is comparatively less and the average density is worked out on the basis of the entire area within the revenue limits of the village and not of the village site. The density differs for different parts of the district as also for its rural and urban areas as will be seen from the statement that follows :

STATEMENT III-2**Density of Population, 1971**

State/District/ Taluka/Mahal 1	Total/Rural/ Urban 2	Population per sq. km. 3
1 State	T R U	136 N. A. N. A.
2 District	T R U	254 181 3,313
3 Vadodara	T R U	993 321 5,456

STATEMENT III-2—contd.

State/District/ Taluka/Mahal 1	Total/Rural/ Urban 2	Population per sq. km. 3
4 Karjan	T R U	191 175 762
5 Padra	T R U	320 275 51,551
6 Savli	R	203
7 Vaghodia	T R U	158 149 503
8 Dabhoi	T R U	229 176 1,591
9 Sankheda	T R U	185 161 1,064
10 Jabugam	R	172
11 Chhota Udepur	T R U	137 127 3,569
12 Nasvadi	R	136
13 Tilakwada	R	178
14 Sinor	T R U	194 175 516

Source :

District Census Handbook 1971, Vadodara, Part X-C-I, pp. 64-65.

The highest average density (993 per sq. km.) is found in the Vadodara taluka as it is an important industrial and educational centre. The lowest (127 per sq. km.) density is in the Chhota Udepur taluka which is tribal and is a comparatively less developed area. In the urban areas, the Padra taluka has the highest density (51,551) while the Vaghodia taluka has the lowest (503). In the rural areas, the Vadodara taluka has the highest density (321) while the Chhota Udepur taluka has the lowest (127).

Rural-Urban Distribution

The population figures for the last seventy years indicate a comparatively greater increase in urban population as compared to the rural.

STATEMENT III-3**Rural and Urban Population of the District from 1901 to 1971**

Census Year 1	Rural Population			Urban Population		
	Persons 2	Males 3	Females 4	Persons 5	Males 6	Females 7
1901 ..	448,784	233,124	215,660	141,554	75,327	66,227
1911 ..	558,236	291,620	266,616	138,642	74,190	64,452
1921 ..	609,854	318,114	291,740	144,976	78,342	66,634
1931 ..	707,919	368,439	339,480	170,517	93,415	77,102
1941 ..	820,553	427,765	392,788	224,984	122,872	102,112
1951 ..	922,193	478,815	443,378	289,742	154,277	135,465
1961 ..	1,129,832	588,009	541,832	397,494	213,017	184,477
1971 ..	1,376,860	717,966	658,894	603,205	323,751	279,454

Source : District Census Handbook 1971, Vadodara, Part X-C-1, pp. 67-70.

From the above statement, it is clear that during the period from 1901-'71, the urban population had increased from 141,554 to 603,205, i. e., 326.13 per cent and the rural population rose from 448,784 to 1,376,860, i. e., 206.79 per cent. The rapid urbanisation after 1941 is due to the impact of industrialisation. The major increase in rural population may be due to more lands having been brought under cultivation and of greater medical facilities and better hygienic conditions brought about by the development programmes under the Five Year Plans.

Rural Population

There were 1,689 villages in the district, out of which 12 were uninhabited. The total rural population of the district was 1,376,860 giving an average of 821 persons per inhabited village, as against 1,051 in the State. The villages classified by population are given below.

STATEMENT III-4**Percentage distribution of Rural Population by Size Group of Villages, 1971**

Size group 1	No. of villages 2	Percentage to total No. of villages 3	Rural popu- lation 4	Percentage to total rural population 5
Less than 200 ..	246	14.67	28,923	2.11
200-499 ..	531	31.65	180,156	13.08
500-999 ..	491	29.28	348,089	25.28
1,000-1,999 ..	287	17.12	382,311	27.77
2,000-4,999 ..	107	6.38	334,082	24.26
5,000-9,999 ..	13	0.78	81,540	5.92
10,000 and above ..	2	0.12	21,759	1.58

Source : Based on District Census Handbook 1971, Vadodara, Part X C-I, pp. 68-69.

Of the 1,677 inhabited villages, 777 or 46.32 per cent fall in the size groups of population below 500; 778 or 46.40 per cent in the size groups of 500-999 and 1,000-1,999. 122 or 7.28 per cent are large sized villages with a population of 2,000 and above. The concentration of population in rural areas is found in medium and large sized villages.

Urban Population

Statement III.5 that follows gives the number of towns classified by population.

STATEMENT III-5

Number of Towns Classified by Size Groups During 1901 to 1971

Year I	I		II		III		IV		V		VI	
	1,00,000 and above		50,000 to 99,999		20,000 to 49,999		10,000 to 19,999		5,000 to 9,999		Below 5,000	
	No. of towns 2	Popula- tion 3	No. of towns 4	Popula- tion 5	No. of towns 6	Popula- tion 7	No. of towns 8	Popula- tion 9	No. of towns 10	Popula- tion 11	No. of towns 12	Popula- tion 13
1971	..	1 467,487	..	..	2	62,121	2	26,280	7	47,317	..	..
1961	..	1 309,716	..	..	2	48,110	2	18,946	4	20,722	..	..
1951	..	1 211,407	..	..	2	39,747	2	15,097	4	23,491	..	..
1941	..	1 153,301	..	..	2	33,997	2	12,980	5	24,706	..	..
1931	..	1 112,860	..	..	2	28,335	2	11,224	4	17,898	..	..
1921	..	1 94,712	..	..	2	24,876	2	8,938	4	16,430	..	..
1911	..	1 99,345	..	..	2	16,970	2	6,132	4	16,195	..	..
1901	..	1 103,790	..	..	2	22,323	1	3,097	3	12,344	..	..

Source : District Census Handbook 1971, Vadodara, Part X-C-I, pp. 71-72.

From the statement, it appears that 30.46 per cent of the district's population live in urban areas, as against 28.08 per cent in the State. Four more areas (towns) of the district acquired urban status during the 1971 Census in addition to the nine such areas (towns) already existing since 1961 Census. With the post-1961 merger of Gorva in Vadodara City, the tally of urban areas from 1961 Census was reduced from 9 to 8. Thus, with the addition of the four new urban areas of Bodeli, Fertilizernagar, Jawaharnagar (Gujarat Refinery) and the Vaghodia, there are now 12 areas (towns) in the district enjoying urban status. Among 11 talukas and 1 mahal, the Savli, the Jabugam and the Nasvadi talukas and the Tilakwada mahal have no town. The urban population of 603,205 persons is spread over 12 towns of different sizes. The average population of a town in the Vadodara district is 50,266 persons as compared to 34,706 in the State.

STATEMENT III-6

Population of Towns

Sl. No.	Name of towns*	1931			1941			1951			1961			1971		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1	Vadodara	112,860	62,744	50,116	153,301	84,666	68,635	211,407	113,518	97,889	309,716	166,858	142,858	467,487*	252,460	215,027
2	Dabhoi	18,156	9,698	8,458	21,139	11,188	9,951	24,952	13,030	11,922	30,841	16,191	14,650	37,892	19,814	18,078
3	Padra	10,379	5,361	5,018	12,858	6,713	6,145	14,795	7,661	7,134	17,269	9,031	8,238	24,229*	12,682	11,547
4	Chhotu-Udepur	6,434	3,567	2,867	7,114	3,850	3,264	8,722	4,615	4,107	10,829	5,736	5,093	14,312	7,460	6,852
5	Karjan	4,790	2,743	2,047	5,866	3,309	2,557	6,375	3,473	2,902	8,117	4,382	3,735	11,968	6,365	5,603
6	Sinor	5,595	2,843	2,752	6,804	3,446	3,358	7,101	3,603	3,498	7,326	3,780	3,546	8,348	4,279	4,069
7	Sankheda	4,983	2,531	2,452	5,867	3,030	2,837	6,488	3,238	3,250	7,378	3,826	3,552	7,973	4,149	3,824
8	Vaghodia	3,105	1,645	1,460	4,025	2,184	1,841	4,966	2,615	2,351	Declassified	Declassified	Declassified	7,551	4,017	3,534
9	Bodali	..	..	..	2,890	1,736	1,154	Declassified	Declassified	Declassified	Declassified	Declassified	Declassified	6,229	3,354	2,875
10	Bahadarpur	4,215	2,283	1,932	5,120	2,750	2,370	4,936	2,524	2,412	6,018	3,213	2,805	6,179	3,200	2,979

*Agglomerated.

†According to the 1971 Census Report, there are 12 areas out of which 2 are urban agglomerations and 10 towns.

Source : District Census Handbook 1971, Vadodara, Part X-C-1, pp. 70-72.

Displaced Persons

As a result of the partition of the country in 1947, some Muslim families migrated to Pakistan and some Hindu families migrated to this district. The total number of such migrants was 8,125 (4,213 males, 3,912 females), of whom 7,887 have settled in the urban areas and 238 in the rural areas. The Government extended various facilities which included technical and vocational training, special priorities in recruitment to public services and loans to settle down in petty business or trade.

Birth Place and Migration

The 1961 Census recorded that 329,173 persons (21.55 per cent of the population) were born elsewhere within the district, 146,680 persons (9.60 per cent) were born outside the district but in the State and 59,200 persons (3.88 per cent) were born outside the State. There has been a general tendency among the village people to go to nearby towns to earn their livelihood. Sexwise distribution of migrants shows that 10.89 per cent of the male population and 33.31 per cent of the female population were born elsewhere but within the district and 7.42 per cent of the male and 12.01 per cent of female population were born outside the district. The high percentage of female migrants is due to marriages resulting in girls leaving their parental homes. The proportion of females born outside the place of enumeration but within the district is as high as 33.31 per cent as compared to those born outside the district but within the State which account for 12.01 per cent and those outside the State which account for 3.60 per cent only.

STATEMENT III-7

Population by Place of Birth, 1961

	Persons/ Males/ Females	Total population	Place of enumeration	Elsewhere in the district	Outside the district but in the State	Outside the State
	1	2	3	4	5	6
Persons	..	1,527,326	992,273	329,173	146,680	59,200
Males	..	801,026	621,281	87,270	59,431	33,044
Females	..	726,300	370,992	241,903	87,249	26,156
<i>Percentages</i>						
Persons	..	100.00	64.97	21.55	9.60	3.88
Males	..	100.00	77.56	10.89	7.42	4.13
Females	..	100.00	51.08	33.31	12.01	3.60

Source : District Census Handbook 1961, Baroda, p. 13.

Sex-ratio

According to the 1961 Census, the number of females per 1,000 males was 907 in the district. This was lower than the similar ratio of 940 for the State. The proportion of females was comparatively higher in the villages

(921) than in the towns (866). The sex-ratio for Dabhoi (905), Chhota Udepur (888), Bahadarpur (873), Vadodara (857), Karjan (852) and Gorwa (822) was lower than the district average (907). The ratios in respect of the above areas appear to be significantly lower due to concentration of male population there, for service, business and educational purposes. Particularly the concentration at Vadodara was due to its importance as industrial, commercial and educational centre.

The higher female ratio in Padra, Sankheda and Sinor may be mainly due to the absence of male members who have migrated to towns and big cities for service or business.

Marital Status

According to the 1961 Census, 43.59 per cent in the district were married (41.71 per cent males and 45.67 per cent females). Persons who never married accounted for 50.13 per cent of the total population, males being 54.45 per cent and females 45.36 per cent of their respective population. The widowed were 3.18 per cent and divorced or separated constituted 5.86 per cent. While in the State 41.42 per cent males and 44.52 per cent females were married and 55.14 per cent males and 45.92 per cent females were never married. The widowed were 12.38 per cent and the divorced or separated were 0.62 per cent. The following statement gives the percentage distribution of males and females by age and marital status.

STATEMENT III-8

Percentage Distribution of Population by Age, Sex and Marital Status

Age groups 1	Never Married		Married		Widowed, divorced, separated and others	
	Percentage of males to total males 2	Percentage of females to total females 3	Percentage of males to total males 4	Percentage of females to total females 5	Percentage of males to total males 6	Percentage of females to total females 7
Total ..	54.45	45.36	41.71	45.67	3.84	8.97
0-9 ..	100.00	100.00	..	..	..	..
10-14 ..	97.83	92.83	2.14	7.12	0.03	0.05
15-19 ..	81.63	43.40	17.88	56.80	0.49	0.74
20-24 ..	44.19	6.27	54.08	92.28	1.73	1.45
25-29 ..	16.48	1.56	80.73	96.19	2.79	2.25
30+ ..	3.79	0.44	85.94	73.19	10.27	26.37

Source : District Census Handbook 1961, Baroda, p. 15.

The statement given above reveals that infant marriages have almost disappeared in the district as no one in the age group 0-9 has been reported married. But the child marriages still persist in the age group 10-14 to the extent of 2.14 per cent for males and 7.12 per cent for females. Among males, the age of marriage has shifted and risen to 20 years and above, and only 17.88 per cent of males in the age group 15-19 years were returned as married. In the case of females, the marriageable age has gone well over 15 as disclosed by the fact that in 1961, 55.86 per cent of females in the age group 15-19 years and 92.28 per cent in the age group of 20-24 years were married. While 26.37 per cent of females of more than 30 years were widowed, divorced or separated, the similar percentage for males was 10.27 per cent only. These figures reveal greater tendency towards remarriage on the part of widowers than widows.

LANGUAGE

Gujarati is the mother-tongue of 89.38 per cent of the population of the district. The 1961 Census, recorded 1,365,068 persons as speaking Gujarati. Speakers of other major languages included Urdu (60,080), Marathi (57,711), Hindi (17,689), Sindhi (16,776), Punjabi (1,523), Marwari (1,461), Tamil (1,341) and Malayalam (915). The number of speakers of other languages was insignificant.

Bilingualism

As stated before, in the district 89.38 per cent have been returned as persons with Gujarati as their mother-tongue. As such, it naturally claims the highest number also among its speakers as a subsidiary language. It is the medium of communication with the local people by those whose mother tongue is not Gujarati.

According to the 1961 Census, the total number of persons speaking languages subsidiary to their mother-tongue was 128,629 or 8.42 per cent, who have returned between themselves as many as 36 subsidiary languages. The most important languages among them are Hindi (49,689), Gujarati (45,036), English (28,831) and Urdu (3,122) followed by Marathi (1,009), Sanskrit (398) and Arabic/Arbi (121). Among the Gujarati speakers (65,155), the general order of preference was Hindi, English and Urdu. For persons with Urdu, Marathi and Hindi as their mother-tongue, the most important subsidiary language was Gujarati while among persons with Sindhi as their mother-tongue, the most important subsidiary language was Hindi.

Language and Script

Gujarati is one of the major languages of the Indo-Aryan family, and is derived, like other languages of the group, from Sanskrit. Its history dates back to about one thousand years. The great scholar, Acharya Hemchandra

(1087-1174 A. D.), who was a distinguished member of the court of the Chaulukya Kings Siddharaj and Kumarpal of Patan, has in his 'Prakrit Grammar' given numerous quotations from contemporary literature which can easily be regarded as a specimen of the oldest Gujarati literature.¹

The progress of the Gujarati language since the time of Acharya Hem-chandra to the present day can be divided, according to Prof. Keshavlal Dhruva, into three periods, viz., the first period from the tenth or eleventh century to the fourteenth century, the second period from the fifteenth century to the seventeenth century and the third period from the eighteenth century to the present times. The language of the first period may be called *apabhramsa* or the 'ancient Gujarati', that of the second period which is generally known as 'the old Gujarati' may be called 'medieval Gujarati', and that of the third period may be obviously called the modern Gujarati.²

The Gujarati vocabulary consists mostly of Sanskrit *tatsama* and *tadbhava* words. However, on account of the historical and social reasons, and contacts with foreigners due to its extensive seacoast and commercial relations, it has absorbed words not only from the Persian, the Arabic, the Turkish, the Portuguese, the English and other foreign languages, but also occasionally from the Dravidian languages of South India. There are in the Gujarati language, hundreds of archaic words of unknown origins called *deshya* which suggest interactions and contacts with diverse cultures of many races. But all these contacts reflected in the vocabulary have had no appreciable impact on the formation of the Gujarati language, which has developed its size and structure from Sanskrit through *prakrit* and *apabhramsa*. In the course of its historical development, its structure had already taken a definite shape. form and content before the commencement of the modern period.³ Having regard to the distribution of the different linguistic features, it appears that the innovating areas in the last two or three hundred years have been the regions roundabout Ahmadabad which was the centre of socio-economic growth and political capital, whereas the earlier innovating areas were in Saurashtra which was then the focal point of culture. Some earlier innovations from Saurashtra spread over the whole Gujarati-speaking community, which indicate that some dialect of Saurashtra was at one time a prestigious or standard dialect.⁴

1. SANDESARA, B. J. (DR.), Article on *Origin and Evolution of Language* published in the Souvenir of the 66th Session of the Indian National Congress, held at Bhavnagar in 1961, p. 191.
2. Presidential address by Dhruva, Shri Keshavlal, in the Second Session of Gujarati Sahitya Parishad, held at Bombay, in 1907.
3. SANDESARA, B. J. (DR.), Article on *Origin and Evolution of Language* published in the Souvenir of the 66th Session of the Indian National Congress, held at Bhavnagar in 1961, p. 191.
4. PANDIT, P. B. (PROF.), Article on *the Language and Dialects* published in the Souvenir of the 66th Session of the Indian National Congress, held at Bhavnagar in 1961 p. 201.

The Gujarati language has dialects or 'bolis' which are only the spoken variants of speech, which include Charotari, Surati and Kathiawadi. A slight local variation in speech and accent is, however, found in different parts of the district or in different communities which retain special features of their own.

The language spoken by the people of this district does not differ much from the standard Gujarati. Moreover, the facilities for transport, diversification of occupations and urge for advancement in education, business and science have contributed much to stabilise the different dialects in the standard Gujarati. However, a standard language is not a completely stabilised language. It is exposed to the winds of change in the dialects; which contribute to the gradual evolution of the standard language.

The Proverbs of the Vadodara District

Proverbs are a treasure of experience and wisdom of the people. They are generally very cryptic, crisp, pointed and full of common sense. The district is the source of many proverbs of which some have their origin in certain villages, castes, communities, temperament of the social group, etc. Some selected proverbs are presented and explained below :

(૧) “ન્યાય જોવો હોય તે
તેન તળાવ જુઓ.”

This proverb has its root in one of the historical events of this district during the rule of Solanki king Siddharaj.

One Hira Salat was entrusted with the construction work of Dabhoi fort. Hira Salat was in love with one woman named Tan (તેન). With a view to keep her memory, Hira Salat had started constructing one lake side by side with the work of the fort. It is said that he was using the stones and other materials which were reserved for the fort. This fact was told to Siddharaj by his mother tactfully. As a punishment Siddharaj buried alive Hira Salat in the wall of the Dabhoi fort. As a result the work of Tan Talav remained suspended upto this date.

So, it is said that if one wants to see the real justice one should see Tan Talav.

(૨) “જેતપુરમે ઢાલકી વાગે
તે દુમાલીયે નાચે.”

This proverb is used when one is absorbed in wishfull thinking. When the drum is played at Jetpor village, the people of Dumali village dance with its beats.

(૩) "દોરડી બળે પળ
વળી ન જાય."

This proverb is used for Mahikantha's Patanwadias who are obstinate and do not yield to any pressure. As the curved thread (*dordi*) of the rope never loses its curves, even though fully burnt, there are persons who would rather break than bend.

(૪) "આ તો કાંઠાનું
મરચું છે."

This proverb indicates irritable and exciting nature of the people of Mahikantha. When one is irritant, it is said that: "he is a chilly of Kantha".

(૫) "હાડનું ધણી."

This proverb indicates social custom among Naikas. Naika woman is the owner only of her body and her children belong to their father. After the death of the husband, the widow has no right over the children. They are put under the protection of the father's relations.

(૬) "ઘાતરડીને બરોડે રહીએ."

Naikas believe in self-reliance and live on their own feet by hard labour. This proverb indicates that spirit. It means that Naikas should stand on the support of sickle, which is the symbol of hard work and self-reliance. It can also be used as a weapon of self-defence.

(૭) "હાથની હથેલીએ જીવીએ."

This proverb also indicates the spirit of self-reliance and love of labour among Naikas. The Naikas believe to live on the palm of their own hand, i. e., on their own hard labour as they are farm labourers.

(૮) "નાયકાની ખેતી નાયકા જેવી."

The Naikas are poor cultivators and their methods and tools of cultivation are old and traditional. It is, therefore, stated that the agricultural methods of Naikas are as poor and as orthodox as the Naikas themselves.

(૯) "નવસો વાવ ને નવવાણું
કૂવા તો ઘે લોકો
તરસ્યા મૂઆ."

This proverb relates to the village Mankani of Sankheda taluka. It is said that once Lakha Vanjara dug nine hundred step-wells and ninety-nine wells, but all of them were without water and they could not satisfy the thirst of the village people.

(૧૦) "માંકણી તો સોનાની
કાંકણી."

This proverb also relates to the village Mankani. The land of the village is very fertile and yields good crops, so, it is said that village Mankani is as good as golden article.

(૧૧) "બોડેલી તો બોડી નાંખે."

This proverb is commonly used among the Adivasis of Sankheda taluka of this district. It relates to the Bodeli town. The Adivasi people are very poor with scanty resources. When they visit Bodeli their pockets become empty because it is very expensive.

RELIGION

This district has a predominantly Hindu population. The 1971 Census shows that as many as 1,795,635 (90.69 per cent) persons were Hindus. The Muslims numbered 154,352 (7.80 per cent), the Jains 17,394 (0.88 per cent), the Christians 7,550 (0.38 per cent) and the Sikhs 2,587 (0.13 per cent). Among others, 289 were Buddhists and 792 followed other religions and persuasions.

The following is the rural-urban distribution of the population under various religions distributed by sex.

STATEMENT III-9

Distribution of Population by Religion

Religion 1			Rural / Urban 2	Males 3	Females 4
Hindus	..	..	R U	675,823 268,635	620,896 230,281
Muslims	..	..	R U	39,043 42,397	35,073 37,889
Jains	..	..	R U	2,284 6,571	2,301 6,238
Christians	..	..	R U	509 3,587	408 3,051
Sikhs	..	..	R U	177 1,330	109 971
Buddhists	..	..	R U	63 99	42 85
Other Religions and Persuasions	..	..	R U	56 354	48 334
Religion not stated	..	..	R U	11 778	22 655

Source : District Census Handbook 1971, Vadodara, Part X-C-I, pp. 98-99.

The Hinduism—Hindus as such profess both Monism and Polytheism. The learned people think that though there is one god, He appears in many forms एकं सद् विप्रा बहुधा वदन्ति। The Vedic Aryans were nature worshippers and worshipped Sun (मित्र, सवितृ, सूर्य, पवन्, विष्णु), Moon (सोम), Fire (अग्नि), Wind (पृक्त), Sky (वरुण), Thunderstorm (रुद्र), rain and storm (रुद्र), rivers, (सरस्वती मिथु), and Rain god (पर्जन्य). Afterwards, there was addition of same abstract ideas which were deified into god like Thee (श्री), Shree (श्री), etc. During the period of Aranyakas and Upanishads there was a shift towards Monism and the idea of one god became prevalent among the Hindus. During the Epic and Puranic periods, there was emergence of gods like Shiva, Vishnu, Brahma and goddesses like Lakshmi, Amba, Kalika, Bahuchara, etc. Due to the influence of non-Aryans' culture, worship of goddesses and gods like Shitala, Baliya Kaka, Vastospati, etc., became prevalent. The influence of the Shakta Sampradaya introduced *linga-puja* and worship of Matrikas in Gujarat. Due to the influence of Buddhism, idolworship and temples of various gods and goddesses became prevalent among Hindus.

After the eighth century, due to influence of Kumaril Bhatt and Shrimad Shankaracharya there was revival of Hinduism, and Buddhism and Shakta Sampradaya lost their hold from Gujarat. During the 15th and 16th centuries, there was revival of Bhakti Marga due to the preachings of Acharyas like Ramanuj, Vallabhacharya, etc., and we see similar ideas being echoed by the early poets of Gujarat like Narsinh, Mira, etc., who were the representative saint poets of the devotional age.

Influence of Religious Sects on Hinduism

Though the caste restrictions have tended to diminish with the spread of modern education and diversification of occupations, the religious life of an orthodox Hindu still continues to be governed by customs and traditions and the particular sect to which he belongs. The Brahmans are generally the followers of Lord Shiva and it is customary that some members of the family must perform the religious rituals every day. The Brahmans are expected to perform *sandhya* (twilight prayer) at least once a day in the early morning, and repeat Gayatri or the Sun hymn. Generally, the Vaniyas are Vaishnavas and staunch adherents of Shri Vallabhacharya, who propounded the Bhakti cult, i. e., the worship of Lord Krishna in the form of Gopal. Instead of the sacred thread, both men and women wear round their neck a *kanthi* of tiny basil or *tulsi* (*ocimum basilicum*) beads. The Rajputs, though partial to the worship of Shiva, are equally devoted to Shakti, the mother goddess. The agricultural and artisan castes are all god-fearing people, and worship some or the other deity of the Hindu pantheon, Rama, Krishna, Hanuman, Mataji or mother goddesses in their various forms. Belief in sorcery, witches, an evil eye and bad omens still prevails, particularly among the tribals and other backward classes.

The Shaivism

The Shaivas observe worship of Lord Shiva in the form of Ling (Fallous) and follow the school of thought as propounded by Adya Shankaracharya. Their main doctrine is the existence of one universal soul or *advaita* and of the individual soul or *jeevatma*. Shankara's¹ doctrine, which is usually known by the name of Kevaladvaita or absolute monism, may be summed up in the four Sansrit words: ब्रह्मसत्यं जगन्मिथ्या². It is only intelligence, without form, without qualities, without any limitations of time, space or causality, that is real; and the unity which according to Shankara is the substratum of all ephemeral and empirical plurality, is itself without the slightest touch of plurality; it is unity absolute; and as such the highest thought of humanity cannot go any further.

Towards the close of the eighth century, the Shiva worship was extended and popularised by Adya Shankaracharya. He established in India four *mathas*² or principal monasteries, where he appointed his four principal disciples as *acharyas* who were in their turn succeeded by their pupils even to this day. The first head of monastery at Dwarka was Mandanmishra, the famous *pundit*, whom Shankaracharya had defeated in philosophical polemics and who had taken *sanyasta* under the name of Sureshwaracharya. The present Shankaracharya, Shri Abhinav Sachidanand Tirth, is the 77th in the line. The Shankaracharya of Dwarka wields great influence over the Hindus in all parts of the Western India. Among the Shaivism, there are numerous sects such as Pashupat, Vir Shaiva, Kapalik or Kalmaukhik, of which the Pashupat Sampradaya was found in various parts of Gujarat. The details of this Sampradaya is mentioned, in the Narayaniya Parva of the Maha Bharat where the Pashupat is mentioned as one of the five schools of religious doctrines (*Santiparva*, Chapter 349, V. 64).

The *Vayu-Puran* (Chapter 23) and the *Linga-Puran* (Chapter 24) represent Mahesvara to have told Brahmadeva that at the time of Krasna-Dvaipayana during the twenty-eighth repetition of the Yugas, Vāsudeva, the best of Yadus, would be born of Vasudeva and Devaki. He would incarnate himself as a Brahmacharin by the name of Lakulisha after entering a dead body thrown into a cemetery. The place where this would occur, would be called Kayavantara or Kayavarohana, and he would have four pupils of the names of Kusika, Garga, Mitra and Kaurusya. These Pashupatas, with their bodies sprinkled with ashes, resorting to the Yoga of Mahesvara, would in the end go to the world of Rudra.

1. GHATE, V. S., *The Vedanta*, Poona, (1926), p. 23.

2. These four *mathas* are at (i) Badrikedar (U. P.) in the extreme north, (ii) Rameshvar (Tamil Nadu) in the extreme south, (iii) Jagannathpuri (Orissa) in the east, and (iv) Dwarka (Gujarat) in the west.

Avakhal, a small village in the Sinor taluka of this district, preserves the tradition, that it is old Ulkagrama, the birth-place of Lakulisha, who was responsible for the development of Lakulisha-Pashupati sect. The *Karvan Māhātmya* adores Karvan as the place of pilgrimage of the believers of the Lakulish cult. This Sampradaya had its strong hold in Gujarat from 7th century onward upto 13th century during the reign of Chavda and Chaulukya kings, who ruled at Anhilpur Patan, Siddhpur, Somnath, Vadanagar and Kutch were the centres of Pashupat Sampradaya and there were many learned scholars like Bhav Bruhaspati, etc. The author of Gankarika was also a Pashupatacharya. Once one *acharya*, Shri Dharma Ghosha, had gone to Afghanistan.

The Vaishnavism

Vishnu is the god of preservation and universal prosperity, whose various incarnations or *avatars*, literally mean his descent on the earth for the good of gods and men. Of these, Rama the seventh incarnation, and Krishna the eighth are the most revered. The cult of Lord Krishna, an incarnation of Vishnu, was spread by many Acharyas in the South, out of whom Ramanuja, Madhvacharya, Vallabhacharya, etc., were the most prominent. Shree Ramanuja differed from Shankaracharya in his concept of monism. He propounded the theory of Vishistadvaita. According to him, there are three eternal principles, the individual or animal soul (चित्) the insensate world (अचित्) and the Supreme Soul (ईश्वर). The main idea which distinguishes the doctrine of Ramanuja from the rest of the Vedanta schools is that the individual souls and the inanimate world, essentially different in themselves, form at the same time the body and mode or attribute of the supreme spirit; and, as such they are incapable of an existence independent of the supreme spirit. This is what gives the doctrine its name 'Vishistadvaita' (Non-duality qualified by duality or the non-duality of the supreme spirit which is qualified by the individual souls and the inanimate world).

In opposition to the pure monism of Shankaracharya and the qualified monism of Ramanujacharya, Madhvacharya or Anandtirtha was the proponent of 'Dwait' philosophy. His followers are not found in Gujarat. The form of Vaishnavism most prevalent in this district is the *pushti marg* or creed of spiritual nourishment, founded by Vishnu Swami and propagated by Shri Vallabhacharya. It is termed Shuddhadvaita as distinguished from the Kevaladvaita of Shankaracharya and Vishistadvaita of Ramanujacharya. According to Vallabhacharya, another great teacher of Vedant school, it is Brahman, pure and simple and without any connection with Maya, that can create the Universe. The doctrine of Vallabhacharya is called Shuddhadvaita. It teaches that god, though eternal, is endowed with celestial form and power and all visible phenomena emanate from him. Building on

this love for god, devotion and an element of pleasure in divine worship, the sect sought to reject the austerity and hardship of other sects. The places which were visited by Vallabhacharya are known as Maha Prabhujini Bethak and the foot-prints of the Acharya are held in high esteem by his followers. He and his son Vitthalnathji had visited Gujarat during the 16th century. Mercantile communities of Gujarat such as Bhatias, Vanias, Lohana, etc., are his disciples. Many religious books of this Sampradaya were written about four or five hundred years ago. Their Havelis (temples) are at Dabhoi, Vadodara city, etc., in this district.

As a reformist among the great teachers of Vaishnavism, Swami Ramanand from north made a valuable contribution for integration of castes. A spirit of sympathy, for the lower castes and classes of Hindu society, has from the beginning been a distinguishing feature of Vaishnavism. Shri Ramanand began a radical reform and made no distinction between Brahmans and members of the untouchables.

The Swaminarayan Sampradaya

Epicurean principles of Vallabhacharya began to assume unseemly forms which caused comments and criticism from various quarters and gave rise to the reformist religious sect such as the Swaminarayan Sampradaya founded in the early 19th century by Shri Sahjanand Swami (1781-1830). It is purely a devotional movement and has a large following all over Gujarat. Gadhada, (*Swamina*) in the Bhavnagar district and Vadatal in Kheda district are the important centres, where Shri Swaminarayan spent a major portion of his life time and propagated the tenets of his religion. The founder, Sahajanand Swami, was born at Chhapai, in the Gonda district (Uttar-Pradesh State) in 1781 A. D. His preaching is embodied in a work called 'Shikshapatri'.

Doctrine and Philosophy of the Sampradaya

On the philosophic side, the Swaminarayan Sampradaya has adopted the Vishistadvaita or qualified monism, the doctrine of Ramanujacharya and on the ritualistic devotional side, it has taken a leaf from the *pushti marg* of Vallabhacharya in the form of the worship of Shri Krishna. The Vachanamruta, which deals with the religious and philosophical talks of Shri Sahajanand Swami to his disciples, is an excellent work in simple Gujarati embodying his holy teachings. He struck at the very root of mixing of sexes by ordering separate *darshan* facilities in temples and religious meetings for males and females, and thus, put a restraint on those immoral practices which had developed on account of free mixing of the sexes.

He was mainly instrumental for moral and spiritual uplift of the people belonging to the lower strata of the society. After short span of thirty years,

he left his mortal body in 1830 A. D. at the age of 49, leaving behind him a vast body of disciples.

The Jainism

The Jainism preaches *tapu* or penance, control of the mind and passions, *ahimsa* and renunciation of all wordly pleasures and attachments to attain *moksha* or liberation. The Jains worship the images of all the 24 *tirthankaras* in their temples, wherein are also found images of the Hindu gods and goddesses in some side niches, under different names.

The Jainism has two major divisions, viz., the Shwetambar and the Digambar. The Shwetambar monks put on white clothes and the Digambar monks move in a nude condition, having direction as their clothes. The major point of difference between the two divisions is whether the injunction to renounce all worldly possessions for achieving salvation should be carried to the extreme by dispensing even with clothes and practising nudity.

Sthanakvasi Sect

Among the sub-branches of Jainism, Sthanakvasi Jains are prominent in this district. This sect is also known as that of the Dhundias from *dhundvu*, to search. It was propagated by Acharya Dhundi Raj.

The Sthanakvasis separated from the Shwetambaras in the fifteenth century (A. D. 1452) on the point of idol worship for which there was no sanction in the ancient texts according to the founder Lonkashah. He was a calligraphist of Ahmadabad, who organised opposition to his old masters. He opposed idol worship on the ground of reason and logic. The Sthanakvasis accept the authority of thirty-two and not forty-five Sutras. They do not visit Jain shrines and temples. They visit Upashtraya and rely on religious books of preaching.

The leading lights amongst the Jains intellectuals in Gujarat were Haribhadra Suri 711 A. D.; Hemchandra 1089-1173 A. D.; Jinaprabha Suri 1270-1345; Hira Vijaya 1527-1596; Anandghana and Yashovijaya 1600-1687; Atmaram 1837-1897. Shrimad Rajachandra 1868-1901 and Vijaydharama Suri 1887-1922. Rajachandra's life, writing and work made great impressions on Mahatma Gandhi who has acknowledged his debt to him in his autobiography. He emphasised on pure fundamentals of Jainism. His books *Mokshamala* and *Atmasiddhi* made great impact on followers of Jainism.

Pirana Sect

A peculiar sect called Pirana has its followers both among the Hindus and Muslims. It has got its name from the village of Pirana, ten miles (16 km.)

south-east of Ahmadabad. It is said that Imam Shah, a Shiah, Ismailia Saiyad, converted many Hindus of the Kanbi caste early in the 16th century by showing them the miraculous powers of his faith. One story is to the effect that by bringing rain after two seasons of scarcity, Imam Shah was able to convert a large body of Hindu cultivators. Another is that a band of Hindu pilgrims, while passing by Pirana on their way to Benares, were told by Imam Shah that, if they would carefully listen to his doctrines, they would visit Benares without the trouble of going there. Some of the pilgrims paid no attention to what he said and went to Benares. Others who trusted Imam Shah, saw in a trance Benares, bathed in the Ganges, and paid their vows. Astounded by this miracle they adopted Imam Shah as their spiritual head. Those who were actually converted came to be known as Momna from Momin believers, while those not actually converted, but following a half-Hindu half Muslim faith, came to be known as Matia, from *mat-opinion*. Another group of half-converted Hindus came to be known as Shaikh or Shaikhda. The Momnas, Matias and Shaikhs call themselves Pirana Panthis, followers of the Pirana sect. They read Imam Shah's book of religious rules in which Atharva Veda is also mentioned; and as a prayer repeat their Saint's name. They keep the Ramzan fast and observe as Holidays the Uras or Saint's day. Besides the Muslim holidays, they observe the Hindu holidays of Holi, Akhatrij, Divaso, Balev and Divali. During the last many years there has been a tendency among the Matias and Shaikhs to revert to Hinduism. In addition to the Muslim *nikah* ceremony, they call a Brahman and go through the Hindu marriage ceremony. A Ramanandi Sadhu named Nirmaldas, preached to the Matias in 1880 that they were originally Kanbis and should abandon their Muslim practices. As a result some, calling themselves Vaishnava Matias, separated from the Pirana Matias.

Modern Movements

Arya Samaj

Like Brahmo Samaj, Arya Samaj is a form of Theistic Hinduism founded by Swami Dayanand Saraswati, about the year 1875 at Bombay. Swami Shri Dayanand Saraswati, a diligent student of the Vedas, found that Vedas do not sanction idol worship, child marriage, enforced widowhood, the caste system based on birth, sole monopoly of the Vedic learning by Brahmins, showy and meaningless ceremonials, miracles, *mritak shraddha*, blind faith and many other superstitions which are generally known among the Hindus by the name of *dharma*. He, therefore, preached the monotheism of the Vedas, taking as his motto "*Ekameva adwitiyam*" (there is but one being without a second). He wrote his well-known discourses in a book-form called the "*Satyarth Prakash*" (Light of Truth). The theology of the Arya Samaj is based on the Vedas and the Upanishadas. It upholds

the performance of *hom*, on the scientific grounds of the purification of the atmosphere. In their *homs*, Arya Samajists burn in a strong fire sweet-scented vegetable with clarified butter and saffron. It preaches the *karmic* theory, Spencer's law of "Action and Reaction", asserting the supremacy of determination and action over fate. The Arya Samaj does not believe in caste or its divisions.

About 1900 A. D. the Arya Samajist movement made its impact on the people of Gujarat. Shri Fulchandbhai, Shri Narsinhbhai Patel, Shri Ravishankar Maharaj, etc., were attracted by this movement. In the year 1912, a branch of Arya Samaj was started at Anand. Thereafter it spread to Navli, Vadodara and other parts of Gujarat.

Arya Samaj movement in this district was started by Shri Chandkaranji Sarda of famous Sarda family of Rajasthan. He visited Vadodara in the year 1921 A. D. Under his inspiration Shri Anandpriyaji, son of Shri Atmaramji, started Aryakumar Sabha in the same year.

Theosophists—Theosophists once occupied an important position in the State. It is not a separate religious order. The Theosophical Society became very popular because of its association with Annie Besant and others who were participants of the Home Rule Movement in India. Among its followers are Parsis, Hindus, Jains, Christians and also some Muslims. It believes in *yoga*, occult practices, incarnation, realization, *karma*, etc. It has its own order of great souls. It has its forms, ceremonies, prayers, organization, etc.

Ram-Kabir or Uda Panth—The Uda Panth was founded by Gopaldas about 300 years ago. He preached the possibility of final emancipation by *jap* or devout contemplation of the all-pervading spirit, and held that future births were necessary for fulfilling unaccomplished desires. His followers are called Uda and are mostly of the Kanbi caste. They mark a part of their forehead and nose with white clay, pour water on the *tulsi* plant, and worship their sacred Book of Faith. In the evening, they bow to the cushion on which the book is kept, wave a lighted lamp and chant hymns. They are very scrupulous about their food which they cook with their own hands. The Mahant is selected by a council of five. He ties a *tulsi* necklace to the novice, fixes days for marriage and funeral feasts, and he also officiates at marriages.

The Islam—The chief articles of Islamic faith are belief in the unity of god, in His Angels, in His Books, in His Prophets, in good and evil as coming from Him, and in the day of Resurrection.

The Muslims in the district constitute a little over 7.80 per cent of the total population according to the Census of 1971. The Muslims are

divided into two sects, viz., the Sunnis and the Shiahhs. The former are more common than the latter. The group of Shiahhs known as Ismailis or Aghakhanis, whose Imam or religious head is His Highness the Aga Khan, is also found among the Khoja community in the district.

Christianity—Christianity is one of the great religions of the world. It originated in the land of Palestine which is at present known as the State of Israel.

Christianity teaches the fatherhood of god and, therefore, the brotherhood of men. It expresses that god is the 'Loving Father.' The sacred book "The Bible" emphasizes love, mercy, justice, and holiness. Christian religion is more moral comparatively than other religions.

It teaches that Jesus is the god incarnate, who took human body and died on the cross, as a vicarious death, to save the sinful humanity from the sin and its consequences.

Jesus, the founder of this religion was born during the time of Roman Emperor Augustus, probably around 4 century B. C. The first thirty years of Jesus' life were spent at the carpenter's bench. After that he started a public ministry. He went around all over Judea, Samaria, and Galilee, the three provinces of Palestine, preaching and teaching about the Kingdom of God, and healing the sick and suffering ones, and asking the people to set right with god by accepting, through faith, the free salvation and the New Life that he offered. He spoke as one having authority rather than as an interpreter. "The sermon on the Mount" is his much loved talk.

The Christians regard the Bible as the sacred Book in which they find record of revelation that lies at the basis of their faith. The Bible contains writings ranging from c. 1450 B. C. to A. D. 100. The moral law as taught in the Bible can be summed up as: "Love the Lord your god with all your heart, with all your soul, with all your mind....." The second is like it "Love your neighbour as much as you love yourself....." "Do unto others as you would be done by."

ZOROASTRIANISM¹ (RELIGION OF PARSIS)

The religion of the Parsis is a universal monotheism. Its fundamental principles are good thoughts, good speech and good actions, love of god, love of truth, and charity in all its connotations. All must strive to do some good. Their creed includes a belief in the existence of angels to assist mankind; in the efficacy and necessity of prayer; in the immortality

1. GERALD L. BERRY, 'Zoroastrianism', Chapter VI from *Religions of The World*, 1949, pp. 36-38.

of the soul ; in an afterlife of rewards and punishments. It is a pure religion with no attempt at propitiation of evil forces.

According to the teachings of Aso Zarathustra, the founder of the religion, the life was a struggle between the forces of good and of evil. The spirit of good was *Ahura Mazda*, Lord of Wisdom. The evil spirit was *Angrahe Mainyu*, or *Ahirman*, the Lie Demon. The two great spirits had come together for the Creation, *Ahura Mazda* creating everything except moral and physical evil, which things were established by *Ahirman*. *Ahura Mazda* had six leading attributes : the good mind, or love ; the righteous order, or plan of grace ; *Khshethra*, or divine noble government ; *Armaiti*, or holy character, or piety ; *Haurvatat*, or health of mind and body ; and Immortality, or life perpetuated in a heaven of good thoughts, words and deeds. *Ahura Mazda* was supported by *Mithras*, Light, and hence the Veneration of Fire as a symbol and the retention of the fire priests. *Ahirman* gained assistance from the old idols and gods.

The chief object of Parsi worship is the element Fire and the Fire temple is the public place of Parsi worship. Besides the leading rites and ceremonies called *jashan*, *gambhar* and *muktad* Parsis have many minor practices and observances to which more or less a religious sanctity is attached.

THE PRESENT POSITION OF CASTES

The main communities in the district are the Hindus and the Muslims. Among the Hindus, mention must be made of Brahman, Rajput, Maratha, Vania, Luhana, Patel (Lewa), Kachhia, Mali, Bhavvad, Rabari, Bhavsar, Chhipa, Darji, Ghanchi, Gola, Kansara, Khatri, Kumbhar, Luhar, Mochi, Salat, Soni, Suthar, Bhat, Charan, Gandhrap, Targala, Turi, Dhobi, Hajam, Bava, Gosain, Ravalia, Bhoi, Bajania, Kharva, Machhi and Vaghari. Among the Muslims, Shaikh, Saiyad, Mughal and Pathan are Muslims of foreign origin while the Vohia, Ghanchi, Fakir, Khoja, Malek, Molesalam, Momna, Memon, Pinjara, Tai and Sindhi are converts to Islam.

Brahmans

The Brahman of Gujarat belong to Panch Dravid. The Brahman are generally said to be of 84 castes and a feast in which Brahman of all castes are invited is, therefore, called a *chorashi*. There are 54 main and 28 sub-castes of Brahman. The Brahman are generally followers of Shaivism but there are many among them who follow Vaishnavism and a few belong to the Swaminarayan sect. They are separated from one another by some historical event, each caste having evolved from a parent body under peculiar circumstances and for certain purposes which have

subsequently influenced its whole career. The Brahman are cultivators, priests or servicemen, traders and some live on alms. In the district there are a number of sub-castes of immigrant Brahman from the south. They came to this district for services as the rulers of the State were Marathas from Maharashtra.

There are a number of sub-castes among the Brahman, viz., Anavala, Audich, Chovisa, Jambu, Jharola, Khedawal, Mewada, Modh, Nagar, Nandora, Shrigod, Tapodhan, Disaval, Uneval, Valam, Vyas, Khadayata, Palival, Raval, Rayakval and Udambar. The immigrant Brahman from south, are Gurav, Deshastha, Koknastha, Shenavi, Yajurvedi, etc.

The Audich Brahman are so called because they entered Gujarat from the North, Udicha. Generally they are all supposed to have come from Uttar Pradesh and Malva. They are mainly divided into two sub-castes, viz., the Audich Sahasra and the Audich Tolakia. The Sahasras are further divided into Sihora and Sidhpuria. In Vadodara district, Audichas of all sub-castes are found.

The Chovisa literally, "of the twenty-four" are Brahman found in the Vadodara city and throughout the district. They are found in large numbers in Sinor. They are divided into two sections called Mota or large and Nana or small.

The Jambu Brahman are also called Jambusaria. They derive their name from the town of Jambusar in the Bharuch district. They are said to have descended from the sage Yajnavalkya and, according to tradition, were the first colonists of the town of Jambusar. Copperplate grants show that they were settled there as early as the beginning of the 4th century A. D. Later on, due to increase in population it became difficult for them to live only upon agriculture. So in search of business or service and for further studies they settled in this district also. Some of their families have settled in foreign countries, viz., U. S. A., England, and East Africa. They are mainly found in Vadodara, Padra, Karjan, Sinor, Dabhoi, Sankheda and Savli talukas of this district. They were once a large and a learned community, but are, now mostly cultivators. Most of the Jambus have their own lands. They rarely live upon priestly duties. In matter of social customs like birth, marriage and death, they have no peculiarity except the restriction on dowry or *paithan* in marriage. The bridal party gives only *kanku* and *kanya* in marriage.

The Khedawal Brahman take their name from Kheda (or Kaira district) where they first settled. They are divided into Baj (बाज outsiders) and Bhiira (भीरा—insiders). They, descended from a band of Tripravari and Pauchpravari Brahman, originally belonging to Southern

India. In this district they are mainly settled at Vadodara, Dabhoi and Sankheda, where they have their own colonies. The Baj Khedawals are found mainly in the Vadodara city, while the Bhitras are scattered in this district. In Vadodara, they had originally settled in Ladwada, though they are spread over in different localities for the past twenty years. According to the Community Census record (1872), there were about 631 persons of this community in this district. A majority of the Bhitras has not secured high positions like the Baj Khedawals. Their main occupation is priesthood of Vania, especially the Lads while a few of them are pleaders, judges, corporators, educationists, professors and industrialists. Some of them have gone abroad for higher education or business. In matter of social customs like birth, *upanayana*, marriage and death, they do not differ much from other Brahmans except in their marriage. There is a custom of giving a dowry of rupees five hundred fifty-one and twelve paise to a bride from a bridegroom's family and a golden ring and one *pitambar* (a silken *dhoti*) to a bridegroom from a bride's family. Their family deity is goddess Tuljabhavanī and the village deity is Bhīmanātha Mahadev. The influence of the Shankar School and the Pushti and Shakta cults also prevails among them.

The Mewada Brahmans originally came from Mewad in Rajasthan. They are divided into three classes—Bhats, Chorasi and Trivedi. They are mostly family priests.

The Modh Brahmans are so called as they migrated from Modhera, once an important place in the Chanasma taluka of the Mehsana district. They are divided into six classes, viz., Agiasana, Chaturvedi, Dhinoja, Jethimal, Trivedi and Kancja. They are mostly found in the Vadodara city.

The Nagars claim to be the highest among the Brahman castes of Gujarat. By their tact, skill and intelligence, they always advance themselves in Government service which is their main occupation. One tradition says that they were created to officiate at Shiva's marriage. Another tradition is that they are the descendants of a Nag, who, pursued by some enraged snake charmers, assumed the form of a Brahman, fled to Vadnagar, married a Brahman girl and had several children by her, who came to be known as Nagars. Vadnagar was no doubt the place of their original settlement, and has given to them the name Vadnagara Nagars. Nagar is a Sanskrit word meaning belonging to or residing in a *nagar* or city. Nagars were probably so called either from their residence in the city or from their descent from the Nag tribe of people, who appear to have followed the Indo-Scythian king Kanaksen, intermarried with local Brahmans and settled in Vadnagar. Even at present, Nagars say that their women are Nag Kanyas or Nag maidens. There are six main sub-divisions of

Nagars, viz., Vadnagara, Chitroda, Krashnora, Prashnora, Sathodra and Visnagara. Among Visnagara and Sathodra, those who have married outside their own community formed a separate caste called Barad. Other sub-divisions are named after places of their settlements subsequent to the split into Vadnagaras and Visnagaras. The Chitrodas take their name from the town Chitrod. They are a small body and are found in Vadodara. The Sathodras take their name from Sathod, a village in Dabhoi taluka. They are found in Dabhoi in this district and in Nadiad, Ahmadabad and other places in Gujarat State. The Prashnoras take their name from Pushkar near Ajmer. They came from Ahichhatra in Mevad. They are found mainly in the Vadodara city in this district. They are *vaidyas* and readers of Purans. The Krashnoras take their name from Krishnanagar or Krishnasagar. Of the six sub-divisions, Vadnagara, Visnagara and Sathodra are again sub-divided in *grahastha* (non-priestly) and *bhikshuka* (priests). Marriage between *grahastha* and *bhikshuka* Nagars was not favoured in the past now there are no such restrictions.

The Nandora Brahmans are spread all over the district, but especially in Vadodara, Karjan, Savli and Sinor talukas. Like Nandora Vanias, they take their name from Nanded (Rajpipla) in the Bharuch district. To this class belong the family priests of the Rajas of Nandod and Dharampur. The rest are cultivators or priests of the Kanbis or beggars. In religion they are Shaiva and also worship goddess Saraswati.

The Shrigod Brahmans are those Gauda Brahmans, who migrated from Shrinagar in Kashmir and thus became known as Shrigod. They are divided into Malvi and Derola. Once when the country suffered from a severe famine, those who migrated to Malwa, became known as Malaviya or Malvi. Malvi Shrigods came to Gujarat from Malva during the reign of Chaulukya kings. The Malvi Shrigods are sub-divided into Juna and Nava (*i. e.*, Those who came first and those who came afterwards). Nava Malvi Shrigods are further sub-divided into Kharola and Kharsodia from the names of the villages where they settled.

The Tapodhan Brahmans are found in all the parts of the district. The Tapodhans are *pujaris* of Shiv and Jain temples. They are also engaged in Government and non-Government services.

The Uneval Brahmans are said to take their name from Una in the Junagadh district. They are found in the Vadodara city. They are peasants or live as priests. They take their name from the sage Valmiki. The Vyas Brahmans are descendants of 108 Brahmans of several sub-divisions who conducted a penance ceremony performed by a Brahman jester in the employ of a Muslim King of Ahmadabad. The families which took part in this ceremony were excommunicated and they formed a separate caste

group. They allow widow remarriage, and in appearance and dress resemble Rajputs and Kanbis. They are cultivators, traders and are also engaged now in services. Shortly after the formation of the Vyas Brahman caste, some members of it began to act as Bhavaiyas or strolling players. They formed a separate caste with the Targalas or Bhavaiyas. The Dadhich Brahman caste is a small community found in the Vadodara city and the district. The Dadhichs say that they belonged originally to the Audich Sahasra stock and got the present name by settling in the village where there was an *ashram* or hermitage belonging to the Dadhichi *rishi*. They are cultivators.

The Palival Brahmins are chiefly found in the Vadodara city. They belong to the Kanyakubja division of Brahmins and take their name from Pali, a chief trade centre in Marwar.

The Ravals take their name from Raval, a village in Saurashtra. They are a branch of the Valam Brahmins who, as a consequence of some dispute, formed a separate community. The Rayakval Brahmins take their name from Raika near Dhandhuka (Ahmadabad District). It is believed that they are descendants of Raikva Muni. They are divided into two sub-groups, Mota or great and Nana or small. The Udumbar is a Brahman caste which takes its name from the sage Udumbar who survived by living on udumbar fruit. They are family priests, and small cultivators and some live on alms. They are found chiefly in the city of Vadodara.

There are some sub-castes of Brahmins who migrated from the Deccan after 18th century, viz., Deshashth, Koknastha, Shenavi, Yajurvedi, Karhada, etc. The Deshashth Brahmins are immigrant Maharashtrian Brahmins from the Deccan who came here for State service during princely regime. It is said that a Maharashtrian king, who wanted to perform a sacrifice invited them to the Deccan from the North. After the ceremony was completed he gave them rich gifts and settled them there. Hence they were known as Deshashth, i. e., those, who settled in the country (*desh*). The Koknastha Brahmins consist of a large number of Chitpavans. They came mainly for the purpose of State service from the Ratnagiri district in Konkan during the former princely regime. The celebrated family of the Peshwas and many of our prominent national leaders like Tilak, Gokhale, Savarkar belonged to this caste. In some respect, what the Koknastha Brahmins are among the Maharashtra Brahmins, the Nagars are among the Gujarati Brahmins. They are Rigvedi of Apasthamba Branch. The Shenavi is a Brahman caste, immigrant from the south. About its origin, there is a tradition that Parshuram invited 64 families of Gauda Saraswat Brahmins to Konkan and settled them in the country round about Goa. After a lapse of time they were known as the Shannava, meaning ninety-six (96) Brahmins. Shenavi is a corruption of

that term. The Yajurvedi is a caste of Deccani Brahmins, so called because Yajurvedis are the followers of the Yajurveda. Karhada is a caste of Brahmins settled in the State during State regime from Deccan. They are so called because they had originally settled in the Karhat country, i. e., the tract between Ratnagiri and Savantwadi. Karhadas are invariably Rigvedis. They are mainly occupied in the Government and non-Government services.

Kshatriya

The Kshatriyas are warrior castes. The Rajputs and Marathas in this district are looked upon as Kshatriyas or warrior castes. The chief social peculiarity of the Rajputs is their division into clans. The Rajput clan names in use in Gujarat are : Bhatti, Solanki, Chavada, Dabhi, Gohel, Jadav, Jhala, Rathod, Mahida, Makvana, Parmar, Rana, Tuar, Udavat, etc. All clans eat together and intermarry, but the members of a clan are forbidden to marry within the clan, as they are believed to be the children of one common ancestor. They were by birth soldiers and landholders. Now they are agriculturists. A great many of them are forced to take service as constables and even as personal attendants and farm labourers. Among Rajputs, marriages are expensive. To economise, hence, there is a practice of sending the bridegroom's sword (*khandu*) to the bride's house, instead of the bridegroom being present in person during the marriage ceremony. The practice of sending the sword is also an indication of family pride and also security or safty. There is no escape for the bride's parents and he has to spend considerably during the marriage ceremony. Widow re-marriage is strictly prohibited among the higher families, but there is no such prohibition for the bulk of the caste. They are followers of Shiva.

The Marathas form an immigrant caste from the Deccan. It has two divisions, Maratha Kshatriya and Maratha (Kanbi), of which the former is hypergamous to the latter. This classification is not rigid. The Kanbi on the other hand does not claim to be a Kshatriya allows both adults marriages and the re-marriages of widows. The Marathas proper are allowed to marry the daughters of the Kanbis. The latter would not ordinarily secure a daughter in marriage from their social superiors. The difficulty, however, is frequently surmounted by a well-to-do Kanbi, who rises to the higher rank as his means increase. Among them the leading clans or *kula* are Surve, Bhonsle, Ghorpade, Salunke, Sitole, Chavan, etc. Leading Maratha clans claim to be of Rajput origin. In 1836, the Raja of Satara sent a Shastri to the Rana of Udepur to make inquiries regarding the origin of Bhonsles, a leading Maratha family. The Rana sent a word that the Bhonsles and his family were one.¹ At the same time, it has to be borne in mind that several

1. DESAI G. H., *A Glossary of Castes, Tribes and Races in the Baroda State*, 1912, p. 88.

Maratha families have *kuldevak* or totems which cannot be reconciled with a pure Rajput origin, Sun flower, *kadam* tree, the mango, the conch shell and the peacock's feather are examples of these totems which are rapidly falling into oblivion but are still worshipped on the occasion of marriages and when a new house is occupied for the first time.

Traders

Among traders, the Vania and the Luhana are main castes found in this district. Among the Vania, those who are followers of the Vallabhacharya or Pushti Sampradaya are called Meshri while those who follow Jainism are called Shravak Vanias. There are 21 castes of Meshri Vanias. The most numerous among the Meshri Vanias are Disaval, Khadayata, Lad, Modh, Nagar and Shrimali who are found in all the parts of this district, while the others are Nandora, Jharola, Mewada, Porwada and Vayada Vanias. Among Shravaks, the most numerous sub-castes are Oswal, Porwada and Shrimali while the others are Disaval, Lad Mewada and Umad.

Now, among the Meshri Vania, the Disaval take their name from Deesa, a town in the Banaskantha district. They are divided into Visa, Dasa and Pancha. The Dasas are further Sub-divided into Ahmadabadi, Surati and Ghoghari. In the marriage ceremony bride and bridegroom go round the *chori* eight times among the Disaval instead of seven times as in other Vania castes. Their family priests are Disaval Brahmans and they are followers of the Vallabhacharya sect. Their family goddess is at Juna Deesa. The Khadayata Vanias take their name from Khadat, a village near Vijapur in the Mahesana district. They are numerous in the Savli and Vaghodia talukas. They are divided into Visa and Dasu. Their family deity is Kotyarka of Khadat Mahudi near Vijapur in the Mahesana district. They are Vallabhacharya Vaishnavas and had to pay large sums for marriageable girls in the past. Next to Shrimalis and Porwads, Lads are the most numerous in the Vania population of the district. They are found chiefly in Vadodara and Dabhoi talukas. They take their name from Lat-desh, the old name of South Gujarat, that is the country south of the Mahi river. They are divided into Visa and Dasa. They are Vallabhacharya Vaishnavas. The Modh Vanias derive their name from Modhera in the Chanasma taluka of the Mehsana district. They are found in all parts of the district. Their main divisions are Adalja, Goghava and Mandaliya. All these divisions are sub-divided into Visa and Dasa. At the wedding of Modh Vanias, a sword and a flywhisk are used which suggest a Rajput origin. They are Vallabhacharya Vaishnavas. The large class of oilmen, known in Gujarat as Modh Ghanchi, were said to be originally Modh Vanias, who by taking to making and selling oil formed a separate caste. The Nagar Vanias, like Nagar

Brahmans claim Vadnagar as their original place of habitation. They are divided into Dasa, Visa and Pancha. Like the Brahmans of the same name, they are shrewd and intelligent and are mainly employed in trade, private or Government service. In religion, they belong to Vallabhacharya sect. A small sub-division called Bam Nagars wear the sacred thread and are settlers from Marwar. They had migrated from Shrimal or Bhinnamal. They are sub-divided into Visa, Dasa and the Lad. The Visa Shrimalis are mostly Jains. The Dasas are either Jains or Vaishnavas. The Vaishnav Shrimalis are spread over all parts of the district but are concentrated in the Vadodara city. The Shrimali Sonis originally belonged to the Shrimali Vania group, but now form a new caste owing to their change of occupation. The Nandora Vanias, take their name from the village Nandod (Bharuch district). The Nandoras are found chiefly in the Vadodara city. Though their family deity is Nandikeshwar Mahadeva, they follow Pushti Sampradaya. The Jharolas form a sub-caste of Vania. They are found in large number in the Dabhoi and Sankheda talukas. They take their name from Jhalor in Marwar and are divided into Dasa, Visa and Pancha. The Panchas form a separate community. They follow Vallabhacharya Sampradaya. The Mewada Vanias are said to have come from Mewar and are divided into Visa and Dasa. They are partly Vallabhacharya Vaishnavas and partly Jains. The Porwads are said to take their name from Porwad, a suburb of Shrimal or Bhinnamal, the old capital of South Marwar. They are divided into Visa and Dasa. Among Visa Porwads, there are both Jains and Vaishnavas. Their family deity is the Shri or Mahalakshmi of Shrimal. The Vayada Vanias take their name from Vayad, a village near Patan in the Mahesana district. They are divided into Amdavadi and Surati. Most of the Vayadas are Vallabhachari. Only some of them worship lord Shiva. They are engaged in Government and non-Government services and other pursuits. Among them, some are leading businessmen, industrialists, lawyers, bankers, etc. The Gujjars form a sub-caste of Vanias. These Vanias were originally Gujjars and had settled in Gujarat before other Vanias. Formerly they were divided into Dasa and Visa. Lately the Visas finding themselves diminishing joined the Dasas. They are followers of the Vallabhachari sect. Among the Shravaks, the Oswal, according to one belief are Rajputs and descendants of the Solanki kings of Anhilwada (A. D. 942-1240), who gave up the sword for sickle. They have such surnames as Chaudhri, Jhala, etc., which support the theory of their Rajput origin. They are divided into three sub-castes, Visa, Dasa and Pancha. The family goddess of all Oswals is Osia in Marwar. The Porwads are divided into Dasa and Visa. Some visa Porwads follow Jainism. The Umad Vanias are said to have entered Gujarat from Marwar about ten centuries ago. They are partly Vaishnava and partly Jain. The word Luhana is a corruption of Lohana. They are said to derive their name from Lohanpur or Lohokat in Multan and are said to be originally Rathod Rajputs. They were driven away by the Musalmans from the Punjab into Sindh and afterwards in the 13th century, they found their way

to Kachchh, Kathiawad and Gujarat. They are Vaishnavas of Vallabhachari and Ramanuji sects. Their family goddess is Randal Mata, and they are devout worshippers of Darya Pir, the spirit of the Indus, who is said to have saved them when they fled from Multan. They wear the sacred thread and allow widow marriage.

CULTIVATORS

Among cultivators the Patel, Kachhia, and Mali are found in this district. Patels are divided into two sub-divisions Leva and Kadva. In this district Leva Patels are mainly found. Gujarati Patels claim to be of Kshatriya stock. They are Gujjars and came from Punjab. The Kachhia is a caste of market growers, from *katchha*, a vegetable garden. They are said to be originally Kanbi or Koli cultivators who took to the growing of garden produce and formed a separate caste. In addition to growing garden produce, Kachhias are also bricklayers, handloom weavers, carpenters, sawyers, shop-keepers and are also employed in Government and private services. In religion, they are Bijpanthi, Swaminarayan or Vallabhachari. Among their sub-castes, the Andharia and Khatri Kachhias are like the Matia Kanbis, followers of Imam Shah and observe half-Hindu, half Mahomedan rites. They fast on Ramzan and visit Pirana (district Ahmadabad). Marriage ceremonies do not differ from those of Hindus in general. Widow marriage and divorce are allowed. Like Hindus the dead are burnt and *shraddha* ceremonies are performed. The Mali is a caste of gardeners. They are gardeners and flower sellers. They are vegetarians. In religion, they are Kabirpanthi, Ramanuji, Vallabhachari, Swaminarayan and some of them are also Jains. Their birth, marriage, and death customs do not differ from those of Hindus. Widows are allowed to remarry. Levirate is a common practice among them. Divorce is granted. The Matia is a caste of Kanbis. They were originally Lewa Kanbis, who came to be called Matia, because they followed the Mat or doctrine of the Pir. They thus acquired many Muslim customs and observances and had to separate from the Lewa Kanbis. They are strict vegetarians. They follow the Atharva Veda and call themselves Satpanthi. They worship the tombs of Muslim saints whose mausoleums are at Pirana, Navsari, Ahmadabad and Burhanpur. Their sacred book is a collection of religious precepts called Shikshapatri made by Imamshah, the saint of Pirana. Some of them learn this book by heart and are called Kaka or devotee. A family of the Kakas officiates at a temple at Kukas in the Sinor taluka. Matias have three religious divisions; Panchia or followers of Surabhai's mausoleum, originally managed by five devotees; Satia or followers of Baba Mahomed's mausoleum, originally managed by seven devotees; and Athia or followers of Bakr Ali's mausoleum, originally managed by eight devotees. Except in being devotees of these different saints, these divisions do not differ in belief or in practice. Matias keep Ramzan

fast and observe as holiday the Uras or saint's day. Besides Muslim holidays, they observe as days of fasting, Holi, Akhatrij, Divaso, Belev and Divali. Their chief places of pilgrimage are Navsari, Vemar, Pirana and Burhanpur. Widow marriage is allowed. Divorce is lawful. They bury their dead. From 1880 there has been a split among the Matias. Through the preaching of an ascetic called Nirmaldas, who told them of their Lewa Kanbi origin, some families calling themselves Vaishnava Matias formed themselves into a separate caste as distinguished from the Pirana Matias. The seceding or Vaishnava Matias have joined the Ramanandi and Dadupanthi sects. They worship images of Ranchhodji or Dwarkanathji and go on pilgrimage to Banaras, Mathura, etc. The Vaishnava Matias have abandoned all Muslim customs, call Brahmans to officiate on marriage and other occasions and in all respects live like Lewa Kanbis.

Bharwad and Rabari

Among herdsmen the Bharwad and the Rabari castes are generally found in this district. They have migrated from Central Asia though they claim Gokul Brindavan to be their original home. Krishna's foster-father Nand Meher belonged to this caste. From Gokul, they are said to have moved to Mewad, and from Mewad they have spread into Gujarat. They sell goat and ewes' milk and weave and sell woollen blankets. Except a few who are Ramanandis, Bharwads are followers of goddesses. Among the Bharwads of Central and South Gujarat, marriages are performed with little or no ceremony. A Brahman or a Darji, or in their absence, one of the members of the bride's family officiates at the marriage. Widow marriage is allowed. A younger brother of the deceased husband has the first claim on his brother's widow. Divorce is allowed. They burn the dead. The Rabaris claim to be Rajputs, who, instead of marrying Rajput women, married celestial damsels (*apsaras*) that is, perhaps, Charan women or daughters of god (*deviputris*) as they style themselves and were, therefore, called *Raha-Bahari*, that is going out of path. Their original home is said to be the Uttar Pradesh from which they moved to Marwad, and from there to Gujarat. They belong to Bijmargi, Ramanandi, and Pirana sects. Among them, all marriages take place on the same day. The Rabaris of one or more villages who wish to have their daughters married meet in a temple. A Brahman is called and he fixes the marriage day. Marriage among near relations is avoided. The dead are buried. *Shraddhas* are performed, with the help of a Brahman and caste people are feasted on the eleventh and twelfth day after death.

There are many castes, which consist of the Hindu craftsmen of the district. Among them Bhavsar, Chhipa, Darji, Ghanchi, Gola, Kansara, Khatri, Kumbhar, Luhar, Mochi, Salat, Soni, and Suthar are the main castes of craftsmen found in this district.

The Bhavsar is a caste of calico printers. Bhavsars are found chiefly in cities and large towns. According to their story, they were originally Kshatriyas, who, during Parshuram's persecution hid themselves in a Mata's temple and for this act of *bhav* (confidence in the goddess), they came to be known as Bhavsar. They have such tribal surnames as Bhatti, Chauhan, Gohel, Parmar and Rathod, which support their claim of Rajput descent. The original home of their ancestors was Vraj (व्रज) Mathura, in North India from which they moved to Marwad and from there to Gujarat. Their family goddesses are Ambaji and Hingalaj. Besides being divided into Meshri and Jain Bhavsars, they are sub-divided into three sub-divisions, viz. Rewakanthia, Ramdeshis and Talabdas. Many Bhavsars have given up calico printing and have become tailors, washermen, traders and have also been engaged in services both Government and non-Government. By religion some are Jain and the rest belong to the Kabirpanth, Radhavallabh sect, Ramanandi sect, Swaminarayan and Vallabhacharya sects. In their marriage rites and social customs, they do not differ from the rest of the Hindus.

The Chhipas are originally a sub-division of Bhavsar, now forming a separate caste. They were calico printers. On account of the decline in the demand for their product, many Chhipas have given up their former occupation and now earn a living by engaging themselves in varied occupations. Some are even labourers and bricklayers. They allow widow marriage.

The Darjis are also called Merai or Sui from Sui, a needle, and live chiefly in towns and large villages. They are of twelve divisions, viz., Dhandhaya, Doshi, Dungarpuri, Gurjjar, Meru, Ramdeshi, Champaneri, Charotaria, Kathiawadi, Pipavanshi, Surati and Vakalia. The surnames like Chavda, Chauhan, Gohel, Solanki, etc., suggest Rajput descent. The Ramdeshis, who are found in the Vadodara district, were originally Marwadi Girasias. In religion they belong to the Madhavachari, Pranamipanthi, Radhavallabhi, Ramanandi, Swaminarayan and Vallabhachari sects. Their widows are allowed to remarry. Divorce is permissible in some places.

The Ghanchis are oilmen, found chiefly in towns and large villages. They are of eight divisions, viz., Ahmadabadi, Champaneria, Modh, Patani, Sidhpuria, Surati, Khambhati and Pancholi. They have Rajput tribal surnames such as Gohel, Jhala, Parmar and Solanki. They are fairly religious and belong to Kabirpanthi, Ramanandi, Swaminarayan and Vallabhachari sects. They are also great worshippers of the Kalika and Bahuchara Matas. Generally their marriage rites are similar to those of Hindus, except in the fact that Hanuman is worshipped by the bride and bridegroom immediately after marriage. Among them widow remarriage is allowed, but divorce is rarely granted. Levirate is a common practice among them.

The Golas are found in most of the towns. According to their story, they were originally Rajputs of Chitod (North) who called themselves slaves or Golas to protect themselves from the persecution of Parshuram. In token of Rajput strain, the word Rana is always added to the word Gola. They are non-vegetarians. Some Golas have given up rice-pounding and work as sawyers, *gumastas* to grocers and cloth-dealers as sellers of salt and some are engaged in private or Government services. As a class, they are religious and are either Bijpanthi Kabirpanthi, Ramanandi or Swaminarayan. Some belong to the Pirana sect also, who, while they worship their saint's tomb, also respect Hindu gods. Marriages are not allowed among near relations or between people bearing the same surname. Widow remarriage is allowed. Levirate is a common practice among them.

The Kansara or coppersmiths derive their name from *kansu* (bell-metal). They are found in most of the large towns and cities. The tribal surnames of Bhatti, Gohel and Parmar show that Kansaras have some strain of Rajput blood. They belong to five divisions, viz., Champaneri, Maru, Shihora, Ahmadavadi and Visnagara. Of the five divisions, the Maru or Marwari wear the sacred thread. In religion they are Ramanandi, Shaiva and Vallabhachari, but hold their family goddess Kalika Mata in high reverence. They visit the shrines of Ambaji, Bahucharaji and Kalika. Except among Visnagaras, widow remarriage is allowed. They have their own trade guild.

The Khatri is a caste of weavers, found chiefly in all talukas of the district. They say that they belonged to the Brahma-Kshatri stock, and came into Gujarat from Sindh in the 16th and 17th centuries, tempted by the strong European demand for their cloth. Their regular features and fair complexion and the fact that they wear the sacred thread favour their claim to be of Brahma-Kshatri origin. The great veneration in which they hold the temple of Hingalaj Mata on the Makran coast, also points to some early connection with that place. Except that their widows remarry, their customs differ little from those of other Hindus. By religion they are Vaishnava.

The Kumbhars are potters; their names is derived from *kumbhakar* (*kumbh*, a water pot and *kar*, maker). They are generally found in all cities and villages. In some places, they are called Ojhas and Prajapatis (creators). Some of them have Rajput surnames, such as Chavda, Rathod, Gohel, Solanki, etc., and claim Rajput descent. They are divided into nine sub-castes, viz., Gurjjar, Lad, Maru, Ajmeri, Banda, Khambhati, Sami, Varia and Vatalia. Besides working as potters, many people of this caste are employed in villages as domestic servants and in towns they have become carpenters, bricklayers and labourers. Those who have taken to carpentry or brick-lying call themselves Suthar-Kumbhar or Kadia-

Kumbhar and claim superiority over others. Marriage between near relations is prohibited, but widow marriage is allowed. They are generally vegetarians. Brahmans officiate at their ceremonies. They burn their dead and perform *shraddha*.

The Luhars are blacksmiths. The word Luhar is derived from Sanskrit *Lohkar*. They are found in cities and large villages. Some of them claim descent from Rajput. There are 13 main sub-divisions in this caste, such as Gurjjar, Bhavnagari, Panchal, etc. Panchal Luhars claim to be Brahmans. Many Luhars have given up their traditional calling and now are engaged in services also. Some of them are carpenters, watch-repairers and labourers. Divorce and remarriage are allowed. Luhars belong to many religious sects, such as Kabirpanthi, Swaminarayan, Ramanandi, etc.

The Mochis are leather workers. They are found in towns and in most of the villages. They claim to be Rajputs. Traces of their Rajput descent appear in their tribal surnames like Chauhan, Chudasama, Dabhi, Gohel, Parmar, Solanki, etc. Their local divisions are Ahmadavadi, Khambhati and Surati. Some of them have left their traditional callings and are now bricklayers, carpenters, masons and other artisans. Except the followers of Swaminarayan sect, the Mochis are not strictly vegetarians. In all their ceremonies, they employ Brahman priests. Divorce is permissible. Widow remarriage is allowed.

The name Salat is derived from *shalya*, a stone. They are stone-workers and are found all over the district, but chiefly in the city of Vadodara and some large towns. Among Salats. Sompura Salats claim to be Brahmans. Sompura Salats put on the sacred thread and are strict vegetarians. They do not allow divorce, but their widows remarry, Levirate is common practice. In religion they are generally Swaminarayan or Shaiva.

The Sonis are gold and silversmiths. They are found in towns and large villages. They are of eight main divisions, viz., Gurjjar, Maru, Mewada, Parajia, Shrimali, Tragad, Kathiawadi and Khandeshi. The Tragad or Mastan community has two divisions, called *nanu* (small) and *motu* (large) and claims descent from a Vania father and Brahman mother. In token of their partly Brahman origin, they wear the Brahmanic thread. The Parajias called after the village of Paraj near Junagadh, claim to be Rajputs. The four sub-divisions, Gurjjar, Maru, Mewada and Shrimali claim to have once been Vanias. Arranged according to their work, Sonis are goldsmiths or workers on gold ornaments, Jadies or tracers of designs on ornaments and Panchigars or diamond and precious stone setters. Some of the Sonis are Shaiva, some follow Vallabhachari sect and some belong to Swaminarayana sect. Among them the Maru, Charotaria and Parajia allow widow remarriage. Only Charotaria Shrimalis allow the wife to divorce her husband. The Sonars are

Daksrani Soni found chiefly in the city of Vadodara. They settled there during the Gaikwad rule. They speak Marathi and their dress, habits and customs are the same as those of the other Dakshanis (Maharashtrians).

The word Suthar is derived from the Sanskrit word *sutradhar* (*Sutra*), i.e., the thread with which the course of the saw is marked. They are spread all over the district. They belong to six divisions, viz., Pithva, Gurjjar, Mewada, Pancholi, Marwadi and Vaishya. Of these, the Pancholis and Vaishyas are mainly found in this district. The Gurjjar, Mewada, Pancholi and Vaishya claim to be the descendants of Vishvakarma, the divine world builder. Among them the Vaishyas wear the sacred thread. In religion, they are Pranafipanthi, Ramanandi, Shaiva, Swaminarayan and Vallabhachari. Among the Vaisya and the Mewada, widow remmarriage and divorce are not allowed.

Bards and Actors

Under the head Bards and Actors, there are three castes mainly found in this district, viz., Barot or Bhat, Charan and Gandhrap. The Bhats are bards, who are found in large numbers in this district. Local inquiries seem to show that Gujarat Bhats were originally Brahmans. Traces of their Brahman origin survive in their wearing the Brahmanic thread and in their having such clans or *shakhas* as Harmani, Kashiani and Parvatani. Among them there are six sub-castes, viz., Deshnami, Kankali, Kanojia, Nagari, Pakhia, and Vahivancha. Their marriage ceremonies do not differ from those of other Hindus. A man may divorce his wife, but the wife is not generally allowed to divorce her husband. Some sub-castes allow widow remarriage. Their main occupation is repeating verses of their own composition or selections from Hindu legends. They chant verses in a style peculiar to themselves as the modulation of the voice and an energetic graceful action give effect to the poetry which is either to praise some renowned warrior, commemorate a victory, record a tragic event or panegyriser a present object. The chief patrons of the Bhats are Rajputs, but Kanbis, Kolis and Luhanas also have their Bhats, who visit their patron's house. The Bhat is also the genealogist, bard and historian of his patron's family. His *vahi* or book is a record of authority by which questions of consanguinity are determined when a marriage or right to ancestral property is in dispute. In the past Bhats stood for securities. They became guarantees for treaties between rival princes and for the performance of bonds by individuals. Many Bhats have abandoned their hereditary calling. Some are well-to-do bankers, money-lenders and traders, some are grocers and village shop-keepers and some are service-men, day-labourers, domestic servants and messengers. In religion, Bhats are Ramanuji, Shaiva and Vaishnava and worship goddesses Amba, Bahucharaji and Kalika.

The Gujarat Charans include four distinct sections, viz., Gurjar, Kachhela or Kachha Charan, also called Parajia or outsiders, Maru or Marwad Charan, and Tumer, probably from Sindh. The Charans follow various callings, some are bards keeping genealogies of Rajputs and reciting their praises and the exploits of their forefather; some are cultivators and some are engaged in services. Unlike Bhats, Charans do not put on the sacred thread. Most of them are Shaiva and are devotees of the consort of Shiva under many names, such as Amba, Bhavani, Parvati, etc. Their marriage customs do not differ from those of Kanbis. Widow remarriage is allowed.

The Gandhrap is a caste of musicians, deriving their name from "Gandharvas", the mythological musicians of the gods. They are spread over the district and some are found in Vadodara city. They entered Gujarat from the north and claim that they are originally Chitroda Nagar Brahmans. Traces of their northern origin remain in the men's long and flowing turbans. They play on various musical instruments and accompany dancing girls in all their performances. They wear the sacred thread and their priests are Audich Brahmans. They are vegetarians. Divorce and widow marriage are not allowed but owing to the smallness of their numbers, marriage among the children of brothers and sisters is allowed and practised. Some of them are Shaiva and others are Vaishnav.

Miscellaneous Castes

Among personal servants there are two main castes found in this district, viz., Dhobi and Hajam. The Dhobis are washermen. They are found in cities, towns and large villages. They allow divorce and widow marriage. In religion they are Kabirpanthi, Ramanuji and Vallabhachari. The Hajams are barbers. They are spread all over the district. The word Hajam is derived from Arabic *hajam* to cup, and refers to his doing cupping operations in olden times. A Hajam is also called Valand from his cutting the hair *val*; a Gainzo from his old work of dressing wounds or *gha*. There are six main divisions of Hajams, viz., Limbachia, Bhatia, Maru, Masuria, Pardeshi and Dakshni. The Limbachias claim descent from a band of Rajputs, who after some defeat fled for protection to their goddess Limbaja in Patan. From Patan they went to Champaner and from Champaner they spread all over the State. In this district they are found in most of the towns and villages. They are vegetarians. Their common profession is shaving but in villages they are also cultivators. Their women act as midwives. By religion, Hajams are Bijpanthi, Kabirpanthi, Ramanandi and Vallabhachari. Divorce and widow remarriage are allowed.

Among mendicant classes the Bava and the Gosain are mainly found in this district. The Bavas are religious mendicants, they are also called Veragi or Sadhu. They were formerly celibates. The Gosains are also called Atit. They are divided into two classes, Mathadhari (celibates) and Gharbari (house holders), of which the latter is a larger group. They are

all Shaivas. They add the clan name to the personal name as Karangar, Hirapuri, Chanchalbharathi, etc. Among the Mathadharis, the Guru-Shishya Sampradaya or succession from preceptor to disciple obtains. The appointment of a *chela* is made by tonsure ceremony (*mundan*) and by covering him with *chadar*. This ceremony is followed by a feast to the members of the caste, which is called *bhandaro*. Generally they eke out their livelihood by begging but among them some are becoming traders and money-lenders and quite a few are being employed in Government service now.

Among the labourers the Bhoi, Bajania, Bavcha and Vaghari are the main castes found in this district. The Bhois were water-carriers and palanquin-bearers in the past. They make nets and practice fishing also. They have nine sub-divisions, viz., Bakoria, Bathava, Gadhedia, Gudia, Kahar, Machhi, or Dhimar, Mali, Meta and Purbia. They are strongly built and dark like Kolis. Except the Purbia, whose home speech is Hindustani, they speak Gujarati. Bhois now also till land, tend sheep or goats, grow water chestnuts, or work as field labourers. Among them widows are allowed to marry and divorce is easy. They worship Meldi Mata; while some of them are Bijmargi, Shaiva or Vallabhachari.

The Vaghari is a caste deriving its name from Sanskrit, *wagura*, meaning a net and means tribe of netters. In appearance and occupation, they seem associated with fowlers and bird-catchers known as Pardhis. According to their own account they are Chauhan Rajputs. Their surnames Chavan, Charan and Koli suggest a mixed people, descendants of men of higher classes in time of famine or from a passion for a girl of the tribe or from some breach of caste rule. Vagharis are divided into four main sub-castes, viz., Chunaras or lime-burners, who are also cultivators and fowlers; Datanias who sell *datan* or tooth brushing sticks; Vedu who grow and sell *aria*, a species of gourd, and live in towns, and Patani who trade in wood and bamboos and sell chickens. The names of the other sub-divisions are Talbada, Champta, Kankodia, Marwadi, Saraniya, etc. They are non-vegetarians. Their favourite food is the flesh of the *iguana* or *gho* and *sandha* (a reptile of the lizard species). They generally keep goats and fowls, sell eggs, catch birds, and go as *shikaris*. They need no Brahmans for betrothal, marriage or death ceremonies. They believe in spirits and lucky-unlucky days. They worship goddesses, the chief among whom are Bahucharaji, Kalika, Khodiar, Meldi, Hadkai and Vihat. They burn or bury their dead. Widow marriage and divorce are allowed.

The Pomla is a caste found in the city of Vadodara. Its members speak a dialect which resembles the Telugu. Both males and females have Gujarati names, such as, Haribhai, Narsi, Jamni, Kashi, etc. They live upon making and selling toys, brooms and baskets of palm leaves and seem to have migrated to Gujarat from South India. Remarriage is not

common among the Pomlas, the belief being that their goddess Lakshmi Mata does not favour such marriages.

There are some immigrant castes, which came to this district from Maharashtra during princely regime for service and employment, viz., Gauli, Gondhali, Gurav, Kayastha and Prabhu. Among these castes, the Gauli is a caste, mostly found in the Vadodara city. In Maharashtra, they follow the same occupation as Rabaris and Bharvads do in Gujarat. But in this district, they do not follow the traditional profession of their caste. They are agriculturists, employed in State services or doing menial works, the *Gondhalis* resemble the Gujarati Bhavaiyas in their occupation. They are found mainly in the city of Vadodara. They perform what is called a *gondhal*-performance, which consists in singing songs or ballads in honour of some goddess. In several Deccani Hindu families, it is customary to perform *gondhal*, after marriage or munj ceremony. The Guravs were originally Brahmans; now they form a separate caste. About their origin, it is said that when Buddhism prevailed, the ministrants in temples were called *guru* or preceptors. In Konkan, Guravs are generally worshippers in temples. In the Vadodara district, their main occupation is that of playing music in the *kirtans*. They are professional music players at marriages or festive occasions-Shahanai being the main instrument. Another occupation followed by Guravs is that of preparing leaf-plates or *patravalia* used by Hindus for placing food on at the time of meal. The Gujarat Kayasthas claim descent from Chandra Gupta and appear to be of the same stock as the Kayasthas of Bengal. Of the twelve branches of Bengal Kayasthas, only three, Valmiki, Mathur and Bhat Nagar are found in Gujarat. Most of them found in this district are immigrants from the North, who came for service. The Valmiki Kayastha much resemble the better class Brahmans, such as Nagars. They are strict vegetarians. Owing to their fondness for show and pleasure, they are called *lalaji* or *lala lok*. They belong to the Vallabhachari sect. The Mathur Kayastha are so called from Mathura, their original home. They came to Gujarat with the Mughal Viceroys as their clerks and interpreters. Thirty or forty years ago, they spoke the Hindustani language in their houses, but they now speak Gujarati. In religion, they are Ramanuji, Vallabhachari or Shaiv. Clerkship is the common calling of the class, but some are also cultivators and traders. They look like ordinary Vanias. The Prabhu is a caste of the Kshatriya class, originally immigrants from Maharashtra. The Prabhus are found in all parts of the district. Their main occupation is Government service. They are divided into Chandraseni Kayastha and Pathare.

The Scheduled Castes

Most of the Scheduled Castes are local but some of them have migrated from Marvad, e. g., Maru Vankar, while some of them have migrated from South India, e.g., Maher, Telegu, Mochi.

Most of these castes are illiterate. The percentage of literacy is 35.52 (rural-33.21 per cent and urban 42.44 per cent). Most of them follow their hereditary profession but some of them are teachers, dressers in hospitals, clerks, etc.

Government policy of reserving certain percentage in different cadres has encouraged them to take higher education. In rural areas, they are farm labourers also. Most of the Vankars have joined mills and have stopped working as weavers on handlooms. They are socially, educationally and economically backward.

According to the 1971 Census, the population of the Scheduled Castes in the district was 114,837 (59,656 males and 55,181 females) forming 5.80 per cent of the total population of the district, as against the State percentage of 6.84. The rural-urban distribution accounted for 86,145 persons in villages as against 28,692 in the towns. The following statement reveals the details of their sex-wise distribution of the population.

STATEMENT III-10

Scheduled Castes distributed into Rural and Urban Areas, 1971

Name of Scheduled Caste	Total Population			Sex		Percentage, to total Population of the district		
	Total	Rural	Urban	Males	Females	Total	Rural	Urban
1	2	3	4	5	6	7	8	9
Total ..	114,837	86,145	28,692	59,656	55,181	5.980	6.26	4.7
Bakad or Bant ..	6	..	6	2	4	..	..	..
Bhambi, Bhambhi, Asadaru, Asodi, Chamadia, Chamar, Chambhar, Chamgar, Haralayya, Harali, Khalpa, Machigar, Mochigar, Madar, Madig, Telegu Mochi, Kamati Mochi, Ranigar, Rohidas, Rohit or Samgar ..	18,203	16,009	2,194	9,513	8,690	0.92	1.1	0.36
Bhangi, Mehtar, Olagna, Rukhi, Malkana, Halakhor, Lalbegi, Balmiki, Korar or Zadmalli ..	27,101	17,770	9,331	13,777	13,324	1.37	1.29	1.55
Garoda or Garo ..	1,646	1,237	409	839	807	0.08	0.09	0.07
Lingader ..	3	..	3	3	..	..	..	..

STATEMENT III-10—contd.

Name of Scheduled Caste 1	Total Population			Sex		Percentage to total Population of the district		
	Total 2	Rural 3	Urban 4	Males 5	Females 6	Total 7	Rural 8	Urban 9
Mahar, Taral or Dhogu Megu ..	337	..	337	187	150	0.02	..	0.06
Mahyavanshi, Dhed, Vankar or Maru Vankar ..	59,133	47,368	11,765	30,701	28,432	2.99	3.44	1.95
Mang, Matang or Minimadig ..	5	..	5	..	5	..	..	..
Meghval or Menghvar ..	111	107	4	59	22	..	0.01	..
Nadia or Hadi ..	171	..	171	80	91	0.01	..	0.03
Shenva, Chenva, Sedma or Rawat ..	26	21	5	9	17	..	..	..
Tirgar or Tirbanda ..	217	217	..	117	100	0.01	0.02	..
Turi ..	175	168	7	116	59	0.01	0.01	..
Unspecified ..	7,703	3,248	4,455	4,253	3,450	0.39	0.24	0.74

Source : District Census Handbook 1971, Vadodara, Part X-C-1, pp. 104-111.

The predominant Scheduled Castes in the district are Mahyavanshi, Dhed, Vankar or Maru Vankar (59,133), Bhangi, Mehtar, Olgana, etc. (27,101) and Bhambi, Bhambhi, Asadaru, etc., (18,203). Besides them other important castes in the district are Garoda or Garo (1,646). Mahar, Taral or Dhogu Megu (337), Tirgar or Tirbanda (217) and Turi (175). Details of some of the castes having social significance are given below :

Dhed—Among the Scheduled Castes, Dheds or Vankars are predominant in this district. They are said to be the descendants of Kshatriyas. Chavda, Chohan, Chudasama, Dabhi, Gohel, Makvana, Parmar, Rathod, Solanki, Vaghela and other surnames which they have, show that they must have Rajput influence over them. Dheds from Marvad are called Marvadi or Maru and those from the South are called Mahar. Besides these, there are ten local divisions named either from the tract of the country in which they live or from their callings such as Kahanamia, Bhalias, Meghwals (rain-men) and Vankars (weavers). These divisions are based on the profession they follow. They are mainly found in the Vadodara, Padra, Dabhoi, Karjan, Savli, Sinor, Sankheda, Chhota Udepur and Jabugam talukas and

the Tilakwada mahal. They are generally vegetarians but occasionally take flesh. They have their own priests called Garodas. They worship Rama, Hanuman, Ganapati and Mata. Some of them are Bijmargi, Ramanandi, Kabirpanthi and are followers of Swaminarayan sect also. Divorce and widow remarriage are allowed. The widow of a man sometimes marries his younger brother. Except a few, who are well-to-do, they bury their dead. *Shradha* ceremony is performed by the chief mourner on the twelfth day or four days from the tenth to the thirteenth. They follow strictly their caste rules and respect caste leaders.

Bhangi—Bhangis or Bhangias (27,101) are scavengers. They are so called because they used to split (Sanskrit, *bhangi*, to break) bamboos for making them into baskets. They are also called Olgana, Mehtar, Rukhi, Malkana, Halalkhor, Lalbegi, Balmiki, Korar or Zadmalli. They have surnames such as Chohan, Chudasama, Dafada, Jethva, Makvana, Solanki, Vaghela, Vadher and Vadhiya. They suggest that they were camp-followers of those tribes. They have also Dhevda, Maru, Parbiya and such other surnames which suggest a mixture of castes. They are mainly found in the Vadodara, Padra, Chhota Udepur, Dabhoi, Karjan, Savli, Sankheda, Jabugam and Vaghodia talukas of this district. They are scavengers and night-soil carriers. The cloth that covers the dead and the pot in which fire is carried before the corpse by Hindus are given to them; they receive presents of grain, clothes and money on an eclipse day, to pacify 'Rahu'. They respect and worship Hindu gods and goddesses. Specially they are worshippers of Hanuman, Meldi, Sikotri, and the basil plant. Many Bhangis are followers of the Kabir, Ramanand and Nanak sect. Divorce and widow remarriage are allowed. A younger brother generally marries the widow of his elder brother. Priests of their own castes or Garodas (Dhed Brahmans) officiate at all their ceremonies. Generally they are non-vegetarian and eat flesh of every kind.

Bhambhi or Chamar or Khalpa—According to 1971 Census the Bhambhi or Chamar or Khalpa is one of the leading groups among Scheduled Castes in this district. They have various surnames in this district such as, Bhambi or Bhambhi Asadaru, Asodi, Chamadia, Chamar, Chambhar, Chamgar, Haralayya, Harali, Khalpa, Machigar, Mochigar, Madar, Madig, Telegu Mochi, Kamati Mochi, Ranigar, Rohidas and Rohit or Samgar. They are mainly found in the Vadodara, Padra, Dabhoi, Karjan, Savli, Sankheda and Chhota Udepur talukas of the district. The Chamars derive their caste name from *charma*, the skin, while the Khalpas from *khal*, outer skin. They are further known as Rohidas as they are considered to be the descendants of the saint Rohidas. They claim to be Rajputs. In appearance many of them, are of light complexion, large and with regular features. These characteristics support their claim. They are mainly tanners and skin-dressers. Their work is the tanning and colouring of hides, the making of

leather buckets, bags and ropes, and the repairing of old shoes. They are generally vegetarian, but have no objection in eating meat. There is very little difference in their dress as compared to other backward castes. They put on short *dhoti* and shirts of coarse cloth. Their ornaments are either of gold, silver or ivory-plated. In the matter of social customs, they do not differ much from the rest of backward class Hindus. They bury their dead. Their priests are Garodas. They also celebrate Hindu festivals and folk songs, *dhol*, *garbi* and *dandiya-ras* also play an important role in their communal life. In matter of religion they worship the goddesses like Chamunda, Khodiyar, etc. They also worship gods like Ganesh, Shiv, etc. Some of them follow Ramdev Pir.

Garoda—Among the Scheduled Castes, the Garodas are the priests of the Antyajas including Bhangis. Their surnames Dave, Joshi, and Shukla point to their Brahmanic origin, but a few bear Rajput surnames such as Gohel, Parmar etc. Like other Hindus they fast on certain auspicious days and holidays, understand Sanskrit and recite hymns and passages from the Purans. They are called Brahmans by Dheds, Bhangis, Chamars, etc., and officiate at their marriage and death ceremonies. Some Garodas are cultivators, others weave and a few act as tailors and barbers. They are mainly found in Vadodara, Padra, Savli, Sankheda, Vaghodia, Karjan, Dabhoi and Sinor talukas of this district. Divorce and widow marriage are allowed. Their dead are buried and they perform *shraddhas*. They worship Hindu gods and goddesses and the *basil* plant. Some are Ramanandi, Kabirpanthi and are followers of Pranami sects. Their family goddesses are Harshad Bhavani, Tulja Bhavani, Saraswati, Gayatri, Sharda, Durga, etc. Sharda is their main family goddess. They go daily to worship Krishna's crown or *mugat* which is placed on the Bhagvat book in their temples. They also worship the Sun and Moon. They draw up and use horoscopes.

The Scheduled Tribes

Scheduled Tribes in the district are composed of Bhils, Dhankas, Naikas, Rathawas, etc. They are found in the hilly tracks and the eastern border of the district, particularly in Chhota Udepur, Nasvadi, Sankheda and Dabhoi talukas.

Formerly they were known as the animistic tribes and now they are described as the Raniparaj, *i. e.*, people who dwell in the forests, hills and the border lands. They were known colloquially as the Kaliparaj, that is the black people.

With developmental activities in the tribal tracks and increasing communication with Hindus, the tribal people are no longer isolated. In religion, language, habits and social customs, they are slowly integrating

with the main stream of social life in the district. Slowly they are being taken in the fold of the Hindu community to which they bear close linguistic and racial affinities. Most of the tribals are illiterate, the percentage of literacy of the Scheduled tribes being 11.32 per cent in 1971 (rural 10.85 per cent and urban 22.41 per cent).

Tribals generally live on forest products. Some of them are small cultivators, whereas some are agricultural labourers, and now with spread of education some are engaged in Government and non-Government services. Among them, there are Journalist, Government Officers, contractors, lawyers, etc. But the disheartening trend is that the more advanced among them have been showing increasing apathy to identify themselves with their tribes.

According to the 1971 Census, the Scheduled Tribes claimed 473,117 (244,560 males and 228,557 females) or 23.89 per cent of the total population of the district. The rural-urban distribution accounted for 453,953 persons in villages against 19,164 in the town. The following statement reveals the details of their sex-wise distribution in the population.

STATEMENT III-11

Scheduled Tribes Distributed into Rural and Urban Areas, 1971

Name of Scheduled Tribe 1	Total Population			Sex		Percentage to total Population of the district		
	Total 2	Rural 3	Urban 4	Males 5	Females 6	Total 7	Rural 8	Urban 9
Total ..	473,117	453,953	19,164	244,560	228,557	23.89	32.97	3.18
Barda ..	3	1	2	3	..	..	..	..
Bavacha or Bamcha ..	657	18	639	351	306	0.03	..	0.11
Bhil, including Bhil Garasia, Dholi Bhil, Dungri Bhil, Dungri Garasia, Mewasi Bhil, Rawal Bhil, Tadvil Bhil, Bhagalila, Pawra, Vasava and Vasave ..	128,973	121,471	7,502	67,299	61,674	6.51	8.82	1.24
Chodhara ..	284	—	284	162	122	0.01	..	0.05
Dhanka, including-Tadvi, Tetaria and Valvi ..	86,332	79,640	6,692	44,189	42,143	4.36	5.78	1.11

STATEMENT III-11—contd.

Name of Scheduled Tribe 1	Total Population			Sex		Percentage to total Population of the district		
	Total 2	Rural 3	Urban 4	Males 5	Females 6	Total 7	Rural 8	Urban 9
Dhodia ..	532	441	91	383	149	0.03	0.03	0.02
Dubla, including-Talavia or Halpati	14,132	13,254	878	7,133	6,999	0.71	0.96	0.15
Gamit or Gamta or Gavit, including Mavehi, Padvi, Vasava, Vasave and Valvi ..	22,383	22,358	25	11,766	10,617	1.13	1.62	..
Kathodi or Katkari, including Dhor Kathodi or Dhor-Katkari and Son-Kathodi or Son-Katkari ..	7	..	7	3	4	..	..	..
Kokna, Kokni, Kukna ..	8	..	8	4	4	..	..	..
Koli Dhor, Tokre-Koli, Kolcha or Kolgha ..	3,532	3,357	175	1,941	1,591	0.18	0.24	0.03
Naikda or Nayaka, including Chohivala Nayaka, Kapadia, Nayaka, Mota Nayaka and Nana-Nayaka ..	58,546	57,557	989	29,922	28,624	2.96	4.18	0.16
Pardhi, including Advichinecher and Phanse Pardhi ..	53	51	2	29	24	..	..	..
Patelia ..	134	38	96	73	61	0.01	..	0.02
Pomla ..	1	..	1	1	..	..	..	..
Rathawa ..	151,336	150,960	376	77,997	73,339	7.64	10.96	0.06
Varli ..	38	38	..	22	16	..	..	..
Vitolia, Kotwalia or Barodia ..	65	65	..	39	26	..	..	..
Unspecified ..	6,101	4,704	1,397	3,243	2,858	0.31	0.34	0.23

Source :

District Census Handbook 1971, Vadodara, Part X-C-I., pp. 116-126.

Scheduled Tribes¹

The predominant Scheduled Tribes in the district are Rathawa (151,236), Bhil (128,973), Dhanka (86,332), Naikda or Nayaka (58,546), Gamit, Gamta or Gavit (22,383) and Dubla (14,132). Besides them other important tribes in the district are Koli Dhor, Kolgha, etc., (3,532), Bavcha or Bamcha (657), Dhodia (532) and Chodhara (284). Details about some of the main tribes are given below :

Rathawa—The Rathawa is one of the leading Tribes in this district. As they call themselves Kolis they are known as the Rathawa Kolis. Rathawas are mainly found in Chhota Udepur. Jabugam and Nasvadi talukas of this district. They take meal for three times a day. In morning they take *rab*, at noon *rab* and loaf and at night loaf mixed with paddy and *kodra* known as Vaghedu. As they have no enough supply of food, most of them eat loaf only at night. They are mainly agricultural labourers. After rainy season or in the winter, they go for labour to other districts. Some of them are cultivators, they plough their land and grow maize, paddy, *muth*, cotton and groundnut in their small piece of land. Pottery is their main cottage industry. They have various surnames, viz., Changhor, Chaudhari, Faliya, Bamaniya, Chuvaniya (Chuvan), Katoliya, Himaliya, Darva, Bariya, etc. They used to have a double parallel mark as tattoo mark on their forehead which indicates their tribe.

Rathawas are short but strong in built. The men wear *langoti*, recently they also wear long shirt and headwear of long cloth like *phenta*. Formerly their women used to put on red coloured *bandhani* and red or blue coloured petticoat while at present they put on various types of dress. Some of them are still found in their old traditional dress. They put on generally silver ornaments, viz., *kalla*, *hansadi*, *kada*, *kandora*, etc. Generally the tribals always keep an arrow in their hands and move in jungle for hunting and in Chhota Udepur for self-defence. Their women used to wear red or blue coloured petticoat, blouse and red *sadalo* (*bandhani*). But now their traditional dresses have changed. They wear all types of women dress according to the fashion. Both the men and women drink wine and Tadi, if available. Among them the girls and boys marry at the age of about 10 to 12 years. The boy's father has to pay some money or goods to the girl's father in marriage. No sweet-meats are served at marriage ceremony. The first delivery of the wife takes place at her husband's house and not at her father's house. Sometimes when a person is cured of illness his name is also changed.

1. (a) SHAH, P. G., *Tribal Life in Gujarat*, 1964, Bombay.
- (b) Based on *District Census Handbook* 1971, Vadodara, Part X-C-I, pp. 119-120.
- (c) Based on information received from the Taluka Development Officer and other knowledgeable persons of the District.

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The women are not scrupulous in marriage life. They sometimes marry another person. In such cases the first husband has to be paid some compensation. Many girls resort to Bhangariyo (elopment) to save their parents from the expenses of marriage. According to the customs, Rathawas select their life partners in the fair. Young men and women go in the fair where they select each other and in the next fair, they meet each other and run away from the fair. Thereafter, they live as husband and wife. Sometimes the Rathawas held marriage ceremony like other caste-Hindus. Among Bhils who came in contact with civilized people, the Brahmans are their religious priest. They welcome the birth of a son and in honour of the family take wine with pleasure. Their main tribal god is Baba Dev. Brahmans are called on many ceremonial occasions, but they also call their Caste-Gor for religious purposes. On special occasions like Holi festival, they sacrifice goats and hens before their god and offer wine too. They enjoy festivals with music and dance. Both men and women dance with arrows. They celebrate festival of Diwali on different days in different villages according to local conveniences. On the New Year day they install the image of 'Godhi Bava' and celebrate the festival which begins from New Year day and ends on Dev Uthi Ekadashi. They also believe in evil-spirit and offer goats, hens, cocks and buffaloes to their god. They have mainly the wooden idols of god and not stone idols. In case of minor illness they do not resort to medicine but get them cured by Badva or Bhagat who is their local doctor and adviser.

Bhils—The Tribe is believed to derive its name from *billu*, the Dravidian word for a bow.¹ According to local legends the Bhils of Gujarat are descended from Goho, son of Ajanbahu son of Kaiyo, king of Abu.² They are mainly found in the Nasvadi, Dabhoi, Vaghodia, Sinor, Chhota Udepur, Sankheda and Savli talukas and Tilakwada mahal of this district while some are scattered over Vadodara, Karjan, Padra and Jabugam talukas of this district.

Bhils often are known by various names on account of their location. Those who settled in the Mewas areas and the areas of ex-Gadh Boriyad State are called Mewasi Bhils while the rest are known as Bhils only. Again, Bhils so often call themselves the Pava Chuvav Bhils, as they fled from the Pavagadh. Because of the influence of the Arya Samaj some of them consider themselves Arya. Those Bhils who are devotees are called Ekadiya and non-devotees are called Bagadiya. The Ekadiyas and Bagadiyas do not inter-marry or interdine. There are also some Bhils who are known as the Dungri Bhils or Bhilalas. They are so called because they settled in the eastern hilly tracks of the Nasvadi taluka. The Dungri Bhils are small cultivators and live on poultry. Their peculiar dance form is called Gheraiya

1. Rev. Dr. J. Wilson's *Aboriginal Tribes*, 3.
2. *Rasmala I*, 103.

Nritya during Holi festival. Their dresses are very similar to those of Rathawas. The Bhil is an aboriginal tribe, generally very dark in colour and very wild in appearance but the Bhils of Chhota Udepur are not as dark as in other areas. They are of fair complexion. The men are muscular, sturdy and of a medium height. The women are well built, but have coarse irregular features. The men wear their hair long, while the women fasten it in braids or plaits. Formerly, almost daily there were complaints of their daring robberies. Most of them now are gradually becoming quiet and law-abiding cultivators. They work as labourers and watchmen also. In a Bhil family, besides attending to the house the women help men in the fields.

Generally the Bhils have two meals, one at about ten in the morning, the other after sunset. The morning meal consists of *rabdi*, maize bread and in the evening maize gram is boiled in water and eaten with butter-milk. The everyday food of a well-to-do Bhil is rice cooked with salt and mixed in butter-milk, and an ordinary Bhil, Maize or *bajri rotla* and butter-milk boiled with chillies and sometimes split peas or beans and gram-mixed with vegetables. They eat flesh of animals and birds. The Bhils' usual dress is merely, a cloth round the loins and a long strip twisted round the head. The women usually wear a voluminous *ghaghara* (petticoat), a bodice and a *sari* wrapped round the body and brought over the head. They tattoo their faces and pierce their ears and noses. Bracelets of tin or brass cover the arm from the wrist to the elbow. Bangles of glass and lac are also worn.

Formerly a vagrant people, without, settled habitation, they have now for the most part, settled down in villages. Of household goods, the stock is small. The family of a well-to-do Bhil has a pair of bullocks, a cow, some sheep and goats and a number of fowls, a cart and field tools including a plough, a weeder or *khupi*, and a hoe or *kodali*. But most of the Bhils have no carts and cattle. Under the Tribal Development Block, financial assistance is provided for the purchase of bullocks and carts and several Bhils now own carts and bullocks. In their huts, besides the sleeping mat, they have grating stone, and a roll of blanket and a few pots and cups, most of them of clay. Every house has a number of large earthen jars to store grain and at least one brass mug or *lota*; many have one or two brass plates or *thalis* and large circular bamboo baskets or *porsas* to hold grain. The baskets are generally kept outside the hut. The regular bazars are held in different villages of Adivasi area on different days as mentioned below :

Monday—Kavant, Tejgadh
Tuesday—Chhagtala (M. P.)
Wednesday—Rangpur (Sadali), Chandpur (M. P.)
Thursday—Devadh
Friday—Zoz
Saturday—Chhota Udepur
Sunday—Panvad

They generally purchase their requirements from these bazars on barter system. They sell their agricultural produce or forests produce in exchange of cloth, etc. Now with gainful employment, their purchasing power has increased and they are able to purchase brass or copper vessels, food and clothes and other necessities. Both devotees and non-devotees call a Brahman for the marriage ceremony, but other ceremonies where Brahmans are not required are carried out by their own family priest. Secondly when the bride and bridegroom exchange their cups of wine the marriage ceremony is said to be completed. Their social customs are similar to those of other Hindu castes. Widow remarriage and divorce are permitted. A custom of *ghar jumai* or *khandhadia* is in vogue in this community. Their caste *punch* decides the social disputes of divorce, kidnapping, etc. The *simant* and *chhathi* ceremonies which were not performed in the past are now practised in imitation of other Hindu castes. They usually bury the dead but those who can afford cremate them.

The regular Hindu festivals which they specially observe are *shimga* or Holi at the spring equinox, Dassera, the day of the autumn equinox and Diwali in October. They also celebrate special festivals known as *Inda*, *Kunvario*, etc. These festivals are celebrated when a person is cured from some disease. On this day he feeds the entire village. They also celebrate the *Goyanu* festival which starts from the *Ashadh* month and lasts upto three months. On the previous day of festival the *Balvo Dev* of the village worship goddesses and on the second day gives sacrifice of goats, etc. That day is known as *Divasa*. They worship *Mata* or *Devi*, revere the Moon and believe in witches.

The Vasavas form no separate caste but it is sub-division of Bhils. Some of the Bhils were either Police Patels or Caste Patels. They were called *Vahavo* or *Vahava*. From this their descendants are called *Vasavas*. According to another belief they are so called because the *Thakor* of *Nandod* invited them to his *Jagir* with a view to rehabilitating them. They cut the forest and improved forest lands and settled there. So they are called *Vasava* (settlers). In this district they are mainly found in the *Sinor*, *Karjan*, *Vaghodia*, *Dabhoi* and *Sankheda* talukas. Among them there are a few literate and educated persons too. Their main occupation is cultivation or agricultural labour. During their marriage the relatives of the bride and bridegroom take them on their shoulders and dance in circular form. At the time of this dance the bride and bridegroom throw rice towards each other. They do not call Brahman generally in their marriage ceremony. One of them performs this duty and conducts ceremony. The clothes of the bride and bridegroom are tied. Those who are forward call Brahman for marriage ceremony. Divorce is permissible and Rs. 150 to Rs. 500 are to be paid by the desiring party. They also perform *shraddha* ceremony. On the day of *barma* they call the *turi* player who dances with playing on *turi*. They worship Lord Shiva and goddesses.

Dhanka or Tadvīs—Among the Scheduled Tribes, the Dhankas or Tadvīs are agricultural labourers and forest labourers while some of them are watchmen. Their adult women are all earners and not dependent upon the men for livelihood; they also help their husbands by adding to the joint income by working as a farm-labourers or as forest labourers. Dhankas formerly had two divisions, viz., *Vodvi* and *Tadvi*. Those who settled on the bank of river *Narmada* were called *Vadvis* and the rest were known as *Tadvīs*. Gradually they became one and so all of them are known as *Tadvīs*. About their origin one popular belief is that the *Tadvīs* (Dhankas) were original inhabitants of *Pavagadh* areas. They were *Chauhan* Rajputs. After *Muhommad Begada* defeated the Rajput Chief *Patai Raja*, the city lost its prosperity and the inhabitants fled to different places in Gujarat. Those who fled and took shelter in the fields and fed themselves on *Dhan* (uncooked grain) were called *Dhankas*. The word *Dhanka* is also derived from Sanskrit *Dhanushyakas*, meaning holders of bows; the group of *Dhanushyakas* as a fighting clan has been mentioned in the *Mahabharata* as going to *Kurukshetra* from western India. They are mainly found in the *Sankheda*, *Jabugam*, *Dabhoi*, *Chhota Udepur* and *Naswadi* talukas and the *Tilakwada mahal* of this district.

Ordinarily, it is possible to distinguish the *Dhanka* by a light colour and more intelligent look as compared to passing *Bhil*, *Naika* or non-tribal farmer in the area. Their face is not flat but somewhat long and roundish. The colour of the skin is light dark and the general impression is that the *Dhankas* as a group are not backward, and though of tribal origin and with some peculiar habits, they have undergone acculturation to a considerable extent. Their children upto the ages of three to four look more handsome but their colour and figure change as they grow older.

In the matter of the social customs like birth, marriage and death, they do not differ much from the rest of the Hindus. The brother-in-law dance is a striking feature of *Dhanka* marriage. The husband of the sister of the bridegroom (*banevi*) or brother-in-law, the husband of the elder sister of the bride carry the bridegroom and the bride respectively each on his shoulders and dance in a circle for sometime. The brother-in-laws are in the centre of the circle and are surrounded by other relatives on both sides. The whole group moves to the tune of the drum and music. One person holds a dish containing rice and *kumkum* powder in the centre and the bride and the groom take the rice and *kumkum* from it and throw on each other. There is a practice of *Khandhadia* marriage among *Dhankas* according to which husband stays with his wife's parents.

Their main items of food are rice *jowar* and *bajri*. Rice is the grain next in use, but wheat is used only on festivals and at the entertainment of outsiders as guest. Pulses and vegetables are used, but *ghee* and milk are

rare. Eggs, fish and meat are now taken by some of them, though they were prohibited by their *guru* Vishvanath. Their male's dress consists of *angarkhu* of *khadi*, *dhoti*, *surwal* and a head dress. He may use a waistcoat or a shirt. While their women prefer a green and yellow coloured clothes. They wear a designed petticoat (*ghaghra*) and a *choli* or *kapdu* when working in the field but a double-up *sari* is used to cover the shoulders and the head. Their child is given the minimum clothing, consistent with the means of the family. The ornaments worn by males are the *bhoriya* on hand, the *ponchi* on wrist, *kandoro* on waist and simple ring like golden *kadi* or *kadi* studded with pearls or golden *kanta*, *khumpa* on ears. While their women put on a *hansadi* studded with silver or gold on neck, silver *vank* on arnlet, silver *kalla* or *sankala* on feet, *loriya* of wood or prepared from other metalsheet and red coloured *baloya* on hand prepared from brass metal chips, *lakhva* or *bilor* on wrist, *kanto* or *jad* on nose and *kandoro* on waist. Women also wear finger rings made of silver, brass and sometimes of gold. While the young girls wear thin chains made of silver called *chhada* and the chains are taking modern shapes as they are now made in the cities. They also wear on the toes of their feet fish shaped rings of silver with joints brought together. Their widows are allowed to wear ear rings made of lac which may be covered by gold or silver. A single gold bangle is allowed to a Hindu widow but no glass bangle is worn by her.

Most of the holidays and social festivals of the tribals are enjoyed by the intense contact with rest of the people. Their folk-ways and folk-holidays are, therefore, influenced by such contacts. The most important holidays such as Makara Sankranti (January), Maha Shivratri (February), Holi (March), Mahalaxmi (April), Gokul Astami (August), Divaso (July), Navaratri, Norta-Dassera (October) and Diwali (November) are observed by the tribals. They worship their own gods and godlings and yet pay homage also to the Hindu gods and goddesses whose number is also a legion. The Khodiyar Mata is their family goddess, and most of Tadvis in their houses keep Madhs of Khodiyar Mata. The commontribal gods of Dhankas, whom they worship, are Vaghadia Dev, Simadia Dev, Chauhan Dev and Corn god while the goddesses are Uncherimata, Nicherimata, Khappar Jogini, Kalika and Ranikajal. The belief in witches and witchcraft is also prevalent among them.

Naika or Naikda—The Naikas form one of the important tribes of Gujarat. The word Nayak is evidently of Sanskrit origin being derived from नय to lead, to protect नयक usually means also a leader or protector. These Sanskrit words naturally reflect a similar leadership even for the Naika tribe; they certainly represent a people, with qualities of leadership, who carved out an independent position of prominence which has been maintained ever since. They are at present divided into three main groups, viz., Uncha (high), Nicha (low) and Choliwala. The Choliwalas are lower than

the Uncha but higher than Nicha, and though there is a rare exchange of brides among them, whenever a formal marriage takes place, the parents concerned followed the rule of hypergamy. This rule permits Uncha Naika to take brides from Choliwala and the latter from the Nicha but the reverse is not permitted. The prominent endogamous sub-groups, however, among the Unchas are Kapadia, Machhi-Garasia, Dabhadia, Vadvai and Bhatthela. The Choliwalas are also divided into such endogamous sub-groups such as Ozaria, Chavaria, Vad, Lim, Warli, Kadhad, Chhapta, etc. Among the Nicha Naikas there are Dikolia, Parsi and Muslim or Voharia Naikas. These three groups are strictly endogamous. They are mainly found in rural areas of the Jabugam, Chhota Udepur, Sankheda, Nasvadi and Vaghodia talukas of this district. They are cultivators, labourers and wood cutters. Their women help them. They seldom leave the district in search of employment. It is a significant feature of life of the Naikas that woman occupies a position of superiority atleast in several aspects of the social life of the community. In matter of their social customs like birth, marriage and death they have some significant features. They are aware of the menstrual function and are aware why the function stops and how the child is born of the mother after about nine months. The Hindu practices of (1) *chhathi puja*—the sixth day worship of the goddess of luck, (2) the tonsure ceremony of the boy in his fourth or fifth year, (3) the puberty ceremony of the girl at 13 or 16— all the three are not observed by them. They invite a Brahman to perform the marriage ceremony. In marriage, it is a significant custom that instead of the girl's father going about in search of the groom, it is usually the boy's father that goes about in search of the bride. The offer for marriage generally comes from the boy's party. It is also noteworthy that the girl is given the freedom to talk with the groom and her consent is secured before the relation is settled. The bride price is fixed fairly high. In ordinary circumstances, the bride price is fixed at the usual scale. It is a significant feature of the custom that it is not the bridegroom, but the bride is taken out in procession. When the bridal procession reaches the groom's village, the latter's parents bring a bullock-cart for the bride. Similarly two maidens with water-pots on their heads come forward to welcome them with the good luck. It is interesting to note that the husband of the sister of boy or girl, lifts him or her respectively on his shoulder and dances to the tune of the drums. Among them the bride returns to her natal house after the wedding, and has to be formally brought back to the conjugal house after a formal send off ceremony which may be a small one *bethu anu* or *motu anu*. The main burden of expenditure of marriage falls on the groom's party. All these ceremonial practices are not strictly observed. The system of residential son-in-law or *Khandhadia* (*gharjamai*) is another privilege of Naika woman. The Kacho Vidhi is prevalent among them in which the girl is given liberty to live with the man she likes without any formal rites. Among them a dead body is disposed off either by cremation or burial. The pyre is lighted from the head side of the corpse and not from the leg-side. There is also a custom of playing drums at the

time of death, and it is continued subsequently during all the important stages of funeral rites, except by the advanced Naikas, who do not like too much noise. Burial is not regarded as a complete funerary rite and so it is followed by another symbolic cremation rite which takes place on the eleventh day after the death. The dead is deified on this day and a statuette of stone or wood known as *khatri* is installed with due ceremony in one corner of the house. On the twelfth day after death a funeral feast (*Dahada*) ceremony is performed. As a matter of comparison, this ceremony may be said to tribal *Shraddha*. They also follow the custom of propitiating their ancestors by a ceremony known as *Mohota Dahada*.

In the matter of food, they take some liquid *ghensh*—a kind of porridge. In the afternoon, as they have to do manual labour, they do not eat heavy food but only take *rotlu* (bread made from *bajri*) and boiled pulses or *chutney* of red chillies. Sometimes they take porridge and baked *mahuda* flowers in the field itself; they may come home for lunch or the afternoon meal, if it is nearby. At night between eight and nine o'clock, they have their big meals. The poor Naikas can seldom afford delicacy in their daily menu but in some places, where contact of urban people is close, they prepare *bhajias* or *bhujalia* or *vada* of *dal* and rice on religious occasions. They also know the preparation of sweets like *shira* of *kansar*. Sometimes the meal may consist of the meal of a sacrificed goat or fowl; while eggs may be used, if poultry is available. They are not strict vegetarians. They dress like Rajputs or Kolis. The men wear a few yards of dirty ragged cloth round the loins and a cloth round the brow showing at the crown the disordered ruffled hair. The women wear over the shoulders a robe or a *sari* of dark blue or red colour, a petticoat, and a bodice. The men wear no ornaments except tin, brass, or silver earrings. The women wear tin earrings, necklaces of beads or shells and brass bangles and armlets in shape and make, except that they wear only one instead of many tiers, much like those worn by Bhil women. Their religious life is based mainly on a sense of fear of the unknown and is thus dominated by the offering of sacrifices to these supernatural forces and keeping them pleased. Their religious life is coloured in three hues. Firstly, there is the traditional tribal life, secondly, they worship the village gods common to the village as a whole and thirdly, they follow the religious practices of the Hindus as the majority community. They worship gods like Baba Tundavo, Vahevario Dungar, Bakubhai Dev, Nandarvo Dev, Bhenhato Baman, Kuhajo Baman, Hala Pruthaviraj, Kalorana, Torunio Dev, Zamaravo Dev, Zampalio Dev and goddesses like Fenai Mata, Verai Mata, Dhanbai Mata, Khedbai Mata, Khemai Mata, Ahnsuvma, Hajuli Mata and Shipri Mata. They also worship Hindu gods and goddesses. Their religious priest is at the village Saidal of the Vaghodia taluka, who preaches them about the religion and morality. They are fond of games and recreations, especially as they have no regular occupations. The most common recreation is to talk and gossip. The most important Hindu festivals celebrated by them are Makar Sankranti

(January), Maha Shivaratri (February), Holi (March), Mahalaxmi (April), Gokul Ashtami (August), Divaso (July), Navratri or Norta, Dassera (October) and Diwali (November).

The Mortar and the Naikdas—In the thatched and mud floored huts of the Naikda people the mortar is a small hole dug out in the floor, where corn is dehusked or pounded or beaten into crushed floor. In an agricultural economy, the importance of this mortar has been great. The mortar plays a significant role in their culture. It is perhaps the part of the house next in importance to the kitchen where a woman reigns supreme, for most of the pounding as also the grinding are done by women. The grinding-stone (*દણ*) and the mortar (*ખાણી*) are the common domestic implements of the primitive people in the Gujarat region, and have acquired a traditional importance.

The mortar is used on the following occasions : (i) Betrothal; when girl's parents go to the boy's house with a coconut and garland and a bunch of flowers to present to the prospective groom, the ritual of presentation is performed at the mortar of the groom's house, (ii) in the afternoon, at the time of ceremonial payment of money, the relatives of the boy and the girl sit near the mortar in the girl's house and hold toddy or liquor in cups of leaves in their hands (*pathara dharavun*). Then follows the ceremony of giving money, which they name as *rupia nakhava*. This money is first deposited in the metal dish *akhiana* (*અખિયા*) (iii) during the wedding rite, the bride and groom are made to sit on a piece of cloth (*pat*) spread over the floor near the mortar. The mother of the groom puts a few coins, one each under the four corners and two sides of the cloth. The most important ceremony takes place in which the groom puts a black bead necklace (*lagan ganthi*) round the neck of the girl. This rite is considered to be the finalisation of matrimonial bonds and it is done while standing near the mortar, (iv) in the case of *khandhadia* marriage also, all the ceremonies are performed at the mortar in the bride's house, (v) in the case of *kacho vidhi*, that is partnership before marriage, the girl is taken to the boy's house by the principal members of both the parties. They all sit near the mortar of the boy's house and partake liquor or tea and thus permit the boy and the girl to live as husband and wife and (vi) also in the case of death, as soon as a person dies, the dead body is placed on the ground near the mortar of the house.

An explanation may be offered for the importance of the mortar in the Naika ritual. In an agricultural community, the mortar is the only fixed place in the front portion of their simple hut, which is capable of ceremonial use. Later the tribal ritual was conducted in a formal wedding booth outside the house, and later on by the elaborate Hindu wedding

booth providing for a fire at the centre and the water-pots in the four pillars called "Chori" Mandap.¹

Muslims

Among the Muslims of this district, in addition to the four main divisions such as Saiyads, Shaikhs, Pathans and Mughals, there are several classes. Almost all of them are of converted Hindus. Of these, chief are Vohoras, Khojas, Memons, Molesalams, Maleks, Momnas, Tais, Chhipas, etc. Besides these, there is a considerable miscellaneous population of Muslims like Barbers, Butchers, Beggars, etc. They are employed in various occupations and services. They are cultivators, artisans, oil-pressers, weavers, bricklayers, professionals and servicemen. They are generally found in Padra, Dabhoi, Sinor, Savli, Sankheda and Vaghodia talukas. In the matter of customs, they observe the Muslims' social customs regarding birth, marriage and death. In the matter of religion, they are Sunnis or Shiah.

The Saiyads can be said to form the highest communal group in the Muslim society. They claim to be descendants from the Prophet through his daughter Fatimah and her husband the Prophet's cousin Ali.

Scores of the Saiyad families entered Gujarat during the reigns of the Sultans of Gujarat (1400-1570) and their successors, the Mughals (1570-1750). The Mirat-i-Ahmadi lists the following important families : (1) The Shirazis, (2) The Bukharis, (3) The Rafa'is, (4) The Qadiriyyas, (5) The Meshhedis, (6) The Idrusis, (7) The Tirmizis, (8) The Bhaktaris, (9) The Arizis, (10) The Zaidis, and (11) The Mehdavis.

A branch of Saiyads tracing their origin from Nizari Pirs and having within their ranks the important Imam Shah entered Gujarat as Ismaili missionaries. At present the Saiyads can hardly be regarded as an affluent section of the Muslim community. There are a number of immigrants who claim to be the Saiyads but they are not so recognised by 'true' Saiyads. The 'true' Saiyads are highly sensitive to marriage connections and those customs which bespeak or even suggest a Saiyad origin. The fluency in Urdu, unmixed with Gujarati and well-versed in Persian are some traits of genuine Saiyads.

Marriage among the Saiyads is arranged as far as possible within the immediate kin group.

1. SHAH P. C., *The Naikas-Naikdas, (A Gujarat Tribe), Part I, Bombay, (1959), pp. 31-32.*

The Saiyads have absorbed some of the mores of the higher Hindu castes. Among them, widows do not remarry, child marriages are frequent and dowries are also high compared to other Muslim communities. In religion they are both Sunnis and Shiah.

The Shaikh is one of the four castes into which Muslims are divided. The word Shaikh literally means 'elder'. It is applied to the descendants of the local converts as well as to foreigners. They are mainly found in the Chhota Udepur, Dabhoi, Vaghodia, Sankheda, Savli and Karjan talukas of this district. They do not marry their daughters in the families of Pathans or Mughals, but accept daughters of Pathans. They do not accept daughters of Mughals. All of them are Sunni by sect. They are religious minded, and like Hindus, keep *badha*, *manta*, etc., during sickness.

The Pathans came and settled in Gujarat since the times of the Sultans of Delhi. It is one of the four classes into which foreign Muslims are divided. They are of Afghan origin. The name probably means people of the uplands. The word is derived from the Arabic word meaning 'Victorious'. It is generally agreed that the name Pathan is the Indian form of the name 'Pushtun' derived from an old Iranian word Parshti (hill). All are Sunnis by religion.¹

Indigenization has affected the Pathans, settled here for generations to the extent of making them indistinguishable from other Muslims; moreover, they have been divided into small territorial units within which alone do their marriages take place. There is virtually no link between the numerous Pathan areas in different parts of Gujarat. In this district they are found in the Chhota Udepur and Jetpur-Pavi, talukas.

The Mughals are one of the four foreign Muslim communities. They came to Gujarat during the reign of Humayun and Akbar after a quarrel with the emperors. They are mainly concentrated in Dabhoi. Government service is the first preference of the Mughals followed by private service and trade. In the matter of religion, they are Sunni by sect.

Vohora is a general term derived from the Gujarati word *vohorvun*, to trade, and is applied to converts to Islam from the Hindu castes belonging to the unmartial classes. Vohoras are divided into two main classes, Vohora traders and Vohora peasants. Both are quite distinct from each other in manners, customs and religious beliefs.

1. MUKERJEE SATYA V., *Census of India 1931, Vol. XIX, Baroda, Part I-Report p. 454.*

Vohora-peasants are descendants of the Kanbi and other cultivating castes, who adopted Islam at the close of the fourteenth and during the fifteenth centuries.

Vohora-traders are mostly descendants of Hindu converts to the teaching of Ismailian missionaries, who came to Gujarat in the 11th century. Even now, they have such surnames as Dave and Travadi, pointing to their Brahman or Vania origin, but a few Vohoras claim descent from Egyptian and Arab refugees. They are the richest and most prosperous class of Musalmans in the district.

The Vohoras are divided in three sub-classes, viz., the Daudi, the Suleimani and the Aliya Vohoras. There is one fundamental distinction between the three, which arose on the death of the 26th Dai, Dawood Bin Adjab Shah, in 1591 A. D., corresponding to the Hijri year, 969. The Vohoras who accepted Dawood Bin Qutubsha, as the 27th Dai, are called the Daudi Vohoras, and those who supported Suleiman Bin Hasan as their 27th Dai are called Suleimani Vohoras. The Aliya Vohoras are separated after the 28th Dai, Shaikh Adam Safiuddin. They accepted Alli Bin Ibrahim as their 29th Dai, after the death of 28th Dai, mentioned above and they are called Aliya Vohoras. Their present Dai resides at Vadodara. The Vohoras in India accepted Daudis as against the majority of Yemenites who supported Suleiman Bin Hasan, after whom they are known as Suleimanis. They are concentrated in Vadodara city and also found in the district. Formerly, they lagged behind in education. But after 1948, there has been considerable expansion of education among boys and girls with the result that the community now boasts of several doctors, lawyers, engineers and chartered accountants. They are also forest contractors and commission agents. They mainly deal in hardware, foodgrains, timber and *timru* leaves. As a class, they are well-to-do. In the matter of social customs like birth, they follow some of the Hindu customs. Among them, a child's naming ceremony takes place on the sixth day. An aunt brings a *thali* with a *diya* (lamp), lit with pure *ghee*, a white dress sprinkled with saffron water and a quill with which the destiny of the child is believed to be written. On the seventh day or the fourteenth day or the twenty-first day from the birth of the child, is the *aqeeqa* when the baby's head is shaved and a goat is sacrificed. The circumcision ceremony for boys is celebrated by taking him out on horse-back in a colourful procession. This rite can be performed at any time during childhood and many get it done soon after birth. Mishaq is celebrated when a Vohora child reaches puberty. He or she takes an oath of allegiance to His Holiness, Mullaji Saheb, promising to pray three times a day, to follow the code of conduct laid down by him and never to associate with those who are against him. In the marriage ceremony, there are certain vestiges of the Hindu system such as practising of endogamy, commensality and outcasting of rebels. For instance, at the time of wedding reception, the bridegroom breaks a coconut.

The bride has to wear a *sari* like a Hindu bride. The marriage is strictly restricted to its caste, i. e., Daudi Vohoras only.

According to Vohoras, the marriage is a contract between the bridegroom and the bride's father or guardian. The bride and groom have to first get a certificate from the local Aamil stating that they have paid all their dues to the community. The marriage date is then fixed. The marriages are also performed among them. The *Meher* or dower is fixed at Rs. 101. For marriage, *nikah* (wedding, ceremony) is performed either by His Holiness Mullaji Saheb (chief priest) or his representative, the Aamil. A bride enters her new home led by her uncle, who shows the way with a *diya*. Modern Vohoras use battery operated torches or lamps. A *dupatta* is draped and tied around the bride and groom, symbolising their eternal union. This ritual is also adopted from the Hindus. At the door, the mother-in-law waves a brass *lota* full of water round the heads of the bridal couple to ward off evil. The bride reverently touches the lady's hand and knee to her eyes, forehead and lips.

At the time of all ceremonial occasions, they eat out of large common *thals*. The *sitabi* is a special meal served in gratitude to prophet Mohammed's daughter, Bibi Fatama, when *minnat* (wish) is fulfilled. Eleven or fourteen women pray together and eat from the *sitabi thal*. After the death, the body is bathed and taken to a mosque for the *namaz-e-janaza* (funeral prayer). The relatives and friends take turns at lifting the pier. The body is interred along with a *rukkuchitthi* (note of blessings) obtained from the head Aamil. In ritual matters, the Vohoras show a little difference from the standard Muslim practice. They offer prayers three times a day instead of five, by combining the two, afternoon and evening prayers. They have no *khutba* (sermon) on Friday because the Imam is absent, i. e., in seclusion. They use the astronomical lunar calendar called the Misri calendar to determine the beginning of each month. The Misri calendar is a device and contribution of the Fatemi Imams who ruled over Egypt for about 200 years. Egypt also now-a-days follows Misri calendar. In common with other Ismailis like the Khojas, the Vohoras believe in a esoteric interpretation of the Quran behind the manifest meaning. Salvation for them is obtainable only through the intercession of a hierarchy which reaches down from Allah to Prophet Mohammed, to Hazarat Ali to the Imams, to the Hujjats (All in seclusion with the Imam) to the Dai-ul-Mutlaq. The Dai-ul-Mutlaq exercises all powers for and on behalf of the Imam, who is in seclusion. Next to the Dai (called Syedna or Mullaji), are the Mazoon (usually his heir apparent), the Mukasir, the Shaikhs and the Mullas. Aamils or representatives of the Syedna in various cities are chosen from the ranks of the Shaikhs and officiate at ceremonies and collect taxes. The older Daudi women are reputed to be a bulwork of orthodoxy because they have a more active part in the religion than do other Muslim women.

The Sulemani Vohoras follow the same religious tenets and practices or customs. They are extremely enterprising people, mostly traders and businessmen. But they have distinguished themselves in several other fields also, like arts, law, medicine and education.

Sunni Vohoras are converted Hindus. Formerly, they were Shiah Vohoras. They became Sunnis by the efforts of religious leaders (Mulla) who came here during the rule of Sultan Muzafarshah I of Gujarat as reported in the book "Preaching of Islam" by Sir Thomas Arnold. Thereafter they formed a separate community known as the Sunni Vohoras. They are mainly found in Dabhoi, Chhota Udepur, Vaghodia, Sankheda, Jetpur-Pavi, Savli and Karjan, talukas of this district. They are engaged in business or employed in Government or semi-Government services. Some of them are lawyers, doctors and engineers also.

Their customs are influenced by Hindu rites, particularly in respect of marriage custom, the influence of Patidar customs is generally visible. Like Hindus, the bridegroom is searched by parents of girls. They also observe Hindu Law of Inheritance in practice. Among them the social organisation is based on classes in hierarchical order like their Hindu ancestors.

The Sunni Vohoras have no particular religious head. Most of them have no *pir* and as such they have no compact communal organisation like Shiah Vohoras, Memons and Khojas.

They are comparatively educated among the Muslims, though they cannot match with Hindus in this respect.

The Khojas are converted Hindus. They are mainly found in the talukas, Dabhoi, Sankheda, and Jetpur-Pavi of this district. The Khojas are the descendants of Luhanas who are converted to Islam by the preaching of a Shiah preacher called Nur Satagur or Nur-ud-din in the 12th century. Nur Satagur is said to have made a number of converts in Gujarat by ordering the idols of a Hindu temple to speak and bear testimony to the truth of his mission. The Luhanas were the first to yield to his influence and in consequence acquired their tribal name Khoja, or honourable convert. One of Nur Satagur's successor, Rande, originally a Tuwar Rajput, sowed the seed of Ismailia faith. On their first settlement in the towns of Gujarat, the Khojas were small dealers in grain and fuel. From these humble beginning, they have now risen to possess a powerful position in commerce. They are scattered all over Gujarat and have dealings with all important trade centres in India and foreign countries. Many of their customs differ materially from those followed by other Muslims. They observe the Chhathi the ceremony performed on the sixth day after birth, and their law of inheritance is that of the Hindus and

not of the Muslims. The Khojas are divided into two divisions called Panjaibhai and Pirai. The Panjaibhai section is more orthodox, and look upon the Aga Khan as the representative of the Prophet, or the incarnation of god himself. The Pirai, which is a very small division, considers Aga Khan merely a *pir*, or a religious head of their community, and nothing more. A Khoja has to pay to his Imam the *dassonth* or *tithe*, the *petonth*, a smaller contribution and about sixteen other minor levies. Besides this, when pressed for money, the Imam sends the *jholi* demanding an extra ordinary levy of the *dassonth* and *petonth*. The regular *dassonth*, is levied once a month at the New Moon, each Khoja dropping in the *jholi*, kept in the *jamatkhana* for the purpose, as much as he is inclined to pay. The religion of the Khojas is Shiah Ismailism. Some of them are also Sunni by faith.

The Memon is a corruption of *muamin* (believer), a name given to the descendants of Muslim converts from the Hindu castes of Luhanas and Kachhias. The conversion first took place in the middle of the 15th century in Sindh in response to the preaching by Saiyad Eusuf-ud-Din Kadri, a descendant of a saint of Bagdad. At that time, Manekji, the head of the eighty four *nukas* of the Luhana community, was in favour at Nagarthatha in the court of a Samma ruler named Markat Khan. Markat Khan became a follower of the Saiyad and Manekji, his two sons and 700 other Luhanas followed their ruler's example. On conversion, the saint changed the name of the community to Muamin or believers. Before leaving Sindh, he blessed his people, a blessing to which the Memons trace their fruitfulness and success in trade. From Sindh they spread all over India and also in Burma, Siam, Singapur, Java and East Africa. They are traders, goldsmiths and money-lenders. Some of them are also serving in private or Government organisations. They are mainly found in Sinor, Dabhoi, Chhota Udepur, Vaghodia, Sankheda and Jetpur-Pavi talukas of the district. They wear the moustaches short, according to the *sunnat* (practice) of the Prophet and the beard about six inches long. Most of them shave the head. Both males and females blacken their eyelids with collyrium. Memon women redden their palms, fingers and finger nails and their soles and toes with henna. As a class they are fond of display. Contact with Urdu-speaking Muslims has given all Memons a colloquial knowledge of Urdu. They are Sunnis of the Hanafi School. As a class, they are religious, though some of them, keep to their former non-Islamic social usage. The most notable of these is their refusal to allow their daughters and widows any inheritance. They are very fond of performing pilgrimages to Mecca. Many of them have the honourable prefix of *haji* or pilgrim. They believe in astrology and consult astrologers, a practice condemned by the Prophet.

The Molesalams are converts to Islam, made from among the Rajputs. During the reigns of the early Sultans of Gujarat, a number of

Rajputs were converted to Islam. In fact a chain reaction was started, a process which continued till the end of the Sultanate. They brought into being the Molesalam Girasiah community, one of the important land-owning communities in Gujarat. Their name is derived from Maula-Islam, meaning masters in Islam. They are mainly found in the Savli, Karjan, Dabhoi, Vaghodia and Sinor talukas of this district. They dine with other Muslims. Though they sometimes take meat, they are mostly vegetarians like the Hindus. A Molesalam will get his daughter married to a Shaikh, Saiyad, Mughal or Babi, but not, as a rule, with other Muslims who are inferior in social status. The son of a chief may get a Rajput girl in marriage; but other Molesalams marry either among their own people or the poorer classes of Muslims. They employ *kazis* or *maulvis*, but also maintain their own Brahman family priests and support Bhats and Charans. Some of them keep their names according to Hindus and Muslims both. In the matter of religion they are Sunni by faith.

The Maleks are converted Hindus. They are mainly found in Chhota Udepur, Dabhoi, Sinor, Sankheda, Jetpur-Pavi, Savli and Karjan talukas of this district. They are landlords, cultivators and servicemen. The Maleks are organised in *jamats* and its rules are strictly observed. The Maleks prefer to marry among near relatives, the girl being given outside only, if a suitable bridegroom is not available among them. The marriage calls are always initiated by the bridegroom's people by sending a *paigam* to the bride's people. This is confirmed usually by a gift of Rs. 5 from the former to the latter. Subsequently, gifts of eatables are sent to each other by both parties. In the matter of social customs they do not differ much from other converted Hindus. They are Sunnis by religion.

The Rajput origin of the Garaisas is indicated by their names which are still mostly Hindus. They are generally poor except those Rajput landowning families who are very well-off and constitute the upper class of the Muslims. They resemble the Maleks in their poverty and backwardness. They are mainly found in the Dabhoi, Vaghodia, Sankheda, Savli, Karjan and Sinor talukas of this district. In villages they are agriculturists and in towns, mill-workers and labourers. Less than a quarter of them were found to be literate. In the matter of social customs like birth, marriage and death they observe Muslim customs. They are Sunni by religion.

The Momnas from Momins (believers) are descendants of Hindus of many castes converted to the Shiah form of the faith by different members of the Ismailiya Saiyads, among whom Imamshah of Pirana was the most distinguished. They are mainly found in Karjan taluka of this district. They are mainly cotton weavers. They also sell cotton rope and tape. Both males and females have Hindu names. Among them circumcision is practised and dead are buried. Like Hindus, women wail and beat the

breast at deaths. Some of them put on Hindu dress while some have Muslim dress. Their women generally put on saree and *chaniya*. They speak Gujarati. Instead of the Quran, they read Imamshah's book of religious rules and also worship Hindu gods. There is a *durgah* of Naya Kaka Pir at the village Kukas of the Sinor taluka in this district where a fair is held regularly. This Naya Kaka was the disciple of Imamshah, who was the founder of the Pirana Sect.

Tais claim descent from Hatim Tai, but appear to be a mixed class of foreigners and converted Hindus. Weaving was their traditional occupation, but in recent times, they have taken to numerous other small trades. They are mainly found in the Dabhoi, Chhota Udepur, Sankheda and Jetpur-Pavi talukas of this district. They are distinct from other Muslims in following the Mehdavi tenets which were spread in Gujarat by Syed Muhammad Jaunpuri in the sixteenth century. Like Hindus, they form a separate *jamat*, with a headman of their own. In Vadodara, they have a *wada* of their own. Their special doctrinal beliefs have placed them in a special position among the Muslims of Gujarat. Their educational standards are not very high. In the matter of religion they are Shiah/Sunni by religion.

The Chhipas are mainly calico-printers. They are Hindu converts who follow their old occupation. They are found in Dabhoi, Vaghodia, Sankheda and Jetpur-Pavi talukas of this district. It is said that originally they came from Rajasthan. They put on Muslim dress. They keep marriage relations among their own community. They do not differ much from other Muslims in matter of social customs. They are Sunni by religion. In all their settlements, they have well-managed union or *jamat*, with a headman chosen by the members.

Miscellaneous Muslim Communities—Among Muslims, particularly among converted Muslims, there are certain social groups, who, by their occupational pattern, developed compact characteristics and have social customs influenced by their counterparts among Hindus. Some of the leading occupational groups are narrated as under :

The term Fakir, means a mendicant. The traditional occupation of these people at one time was begging, but now a number of them have settled in the towns and rural areas. In villages they are cultivators and in towns they follow miscellaneous trades. They are mainly found in the Sinor, Chhota Udepur, Dabhoi, Vaghodia, Sankheda, Jetpur-Pavi, Savli, and Karjan talukas of this district. In matter of social customs like birth, marriage and death they follow Muslim customs while in religion they are Sunni by faith.

1. MISRA, S. C., *Muslim Communities in Gujarat*, 1963, pp. 69-77 and 103.

The name Kadia is derived from their profession of masonry, bricks laying and affiliation with house-construction. They work as labourers. They are mainly concentrated in Dabhoi town and are scattered over the Dabhoi, Vaghodia, Sankheda, Sinor, Jetpur-Pavi and Karjan talukas of this district. They are a poor community with little education. In the matter of social customs like birth, marriage and death they do not differ much from other Muslims. They are Sunni by religion.

The Sindhis are mainly concentrated in Vadodara and also found in the Dabhoi, Sankheda, Jetpur-Pavi, Karjan and Sinor talukas of this district. Formerly they were employed in the State Police and army, while at present they are in services both in Government and private organisations, especially in the police and like departments. They also follow other callings. In the matter of the social customs like birth, marriage and death, they observe Muslim customs. They are a poor community and educationally backward. In the matter of religion they are Sunni by faith.

The Pinjara is a craftsman community, who are cotton-threshers. In addition to the traditional calling of threshing, which no longer suffices they have taken to miscellaneous callings like oil-selling, small trade and private service. Since both the Ghanchis and Pinjaras have taken to oil-trade and have adopted the surname Mansoori, it appears probable that the two communities are nearer to one another and may have a common origin. They are mainly found in Vadodara, Chhota Udepur, Vaghodia, Sankheda and Karjan talukas of this district. In the matter of social customs like birth, marriage and death, they follow Muslim social customs. In religion they are Sunni/Shiah by faith. They are a poor and backward community.

The Dudhwalas are mainly concentrated in Vadodara city. Their main occupation is reported to have been selling milk but in recent times, they have taken to driving *ghoda-gadis* or horse-carriages and lately autorickshaws and taxis. They also follow other miscellaneous callings like small shop-keeping, private service, etc. They are Sunni/Shiah by religion. Educational standards are low among them and community appears to be relatively well-off compared to others.

The Makrani is one of the branches of the Baluch community though distinct from it. They are mainly concentrated in the Chhota Udepur, Vaghodia, Sankheda, and Jetpur-Pavi talukas of this district. They are chiefly engaged as agricultural labourers and small trade. In the matter of social customs like birth, marriage and death, they observe Muslim customs, while in religion they are Sunni by faith. They are generally poor and educationally backward. They are on a par with other communities like Sindhis, Kasbatis and Sipahis.

The Khatri are concentrated in the Chhota Udepur, Dabhoi, Vaghodia, Sankheda, Jetpur-Pavi, Karjan and Jabugam talukas of this district with sprinklings elsewhere. As a community, they are engaged in retail trade of cloth and handspun yarn. Economically they are well-off and educationally also advanced, more than half their number being literate with proportionate higher education. In the matter of social customs like birth, marriage and death they observe Muslim social customs. They are, Sunni by religion.

The Khokhars are mainly found in the Dabhoi and Sinor talukas of this district. They are mainly engaged in agriculture. In towns, they are labourers also. They observe Muslim social customs while in religion they are Sunni by faith. Education among them is low.

The name of Rangrez indicates that they are north Indian dyers and most of them appear to follow this profession. They are mainly found in Vadodara, Dabhoi and Karjan talukas of this district. They observe Muslim social customs. They are Sunni by religion.

The Khamzada Pathan is a local community settled in the Pandu village of the Savli taluka of this district. They are mainly engaged in service and small trade. Evidently, they have formed a close group by themselves and have developed into an endogamous unit, distinct from other Pathans. Education among them is fair.

The Maniars are traditionally banglesellers but now also engaged in other small trades. It is a commercial community with a fairly good education.

The Sonis are spread out all over the district. As a craftsmen community, they are goldsmiths with a fairly good education. Its localization suggests that it is a part of another community which has taken to this craft.

The Mochis are cobblers by tradition. They are mainly concentrated in the Sinor, Karjan and Dabhoi talukas of this district. It is a poor and backward community. In the matter of social customs they observe Muslim customs.

The Barots are traditional recorders of the Rajput families. They appear to have embraced Islam with their patrons. They maintain the genealogies of their patrons. In addition, they have now taken to service and small trade and are also small land-holders. Educationally, they are fairly placed.

The Bhois are mainly concentrated in the Vadodara city. Formerly they were mainly domestic servants, now they have taken to miscellaneous occupations, mainly labour.

The Marwadi community is also known as the Ansari but in Vadodara they are known as Marwadis. It is said that this community is of Arabic origin which migrated to India with Muhammad bin Qasim during his invasion of Sind. In the nineteenth century, they came to Vadodara. In Vadodara, they came as masons for the construction of State buildings like the Palace, Nyaya Mandir and Khanderao Market from their native places in Rajasthan. Now a number of them are engaged in nickel-plating eating utensils. Some are also teachers and clerks.

During the recent years, the dress of Marwadis has changed from the traditional Rajasthani pattern to that of the average Gujarati Muslim. Older people even now wear the *dhoti* and the heavy turban. Yellow colour is preferred by women for their dresses and the turbans of the men folk are also red or yellow. During the marriage ceremonies, the use of turmeric paste is frequent. Also common is the customary singing of the women folk to the accompaniment of the *dhol* (tom-tom). Both these practices reveal the hold of tradition on them.

As a community, they are the followers of the Nagor Syeds, Sayed Mohi-Ud-din. Their language is now Gujarati with a very heavy tinge of Urdu and Rajasthani words. They have an elementary form of *jamatbandhi* with panchers who decide on matters of communal concern. They are elected from time to time.

Inter-Caste Relations—As in other parts of the country, inter-caste relations were very rigid a generation ago. The members of different castes and sub-castes lived in close watertight compartments in such matters as inter-dining and inter-caste marriages. The picture has greatly changed especially after Independence and the changes that have occurred in recent times are noteworthy. Inter-dining is no longer looked upon with disapproval by a Hindu anywhere in the district particularly in towns, though this restriction still persists in a diluted form in rural area. Inter-caste marriages, though not very common, are more frequent than ever before and many of the traditional restrictions on marriage based on caste are gradually disappearing as a result of the spread of education, influence of western culture, equality of sexes and consequent removal of disabilities from which women suffered in the past.

SAINTS AND PIRS

The saints and *pirs* have played an important role in healing the sufferings of the people. They have also moulded the character and social

behaviour of the people in different periods of history. Before they preached precepts, they practiced them in their own life. As a result, whatever religious discourses they held or sermons they preached had a tremendous impact on the society. In the Vadodara district, a number of saints flourished. The life and teaching of some of the saints are described below.

Shri Karunasagar Maharaj—Shri Karunasagar Maharaj was the founder of Kevalgnan Sampradaya in Gujarat. He had established the Sampradaya by about the end of the 1800 A. D. He was a devoted believer and had great faith in god. In his teachings, he has emphasised following three things :

(i) The concept of god having qualities and attributes brought in its train a number of problems. Instead of worshipping real god, the followers started worshipping his incarnations. In reality, according to the modern view, the incarnations represent stages of human development and nothing more.

(ii) The concept of god without attributes and form has its own limitations. Therefore, almighty, the creator of this world, is not understood in his real essence.

(iii) The real understanding of god can be had through self-realisation and divine knowledge. This knowledge can only be had by spontaneous self-realisation through meditation and faith.

Shri Karunasagar strongly believed in non-violence and tolerance. Unlike other sectarians, he always respected beliefs and teachings of other sects. He believed in self-realisation and knowledge of ultimate reality. The goal of life is to secure oneness with the creator-Almighty. His book (દસતા લેખાગ્રંથ) throws light on his teachings. His followers are found in the Vadodara, Dabhoi and Padra talukas of this district.

Nrisinhacharya and Shreyas-Sadhak Adhikari-Varga—Nrisinhacharya, the founder of the community, Shreyas-Sadhak Adhikari-Varga, was born at Kadod, a village in the Bardoli taluka of the Surat district in November 1853. From early childhood he was a mystic. When studying at Surat, he came in contact with learned men, specially Christian missionaries like the Rev. Mr. Montgomery. Thereafter he joined as clerk in Engineering Department in the Vadodara State. He gave up his service and devoted his time in Yoga, contemplation, study and religious experience. Because of this he attracted a large number of educated and illiterate persons who became his disciples. The community was formed in 1882. It has never been a sect. Its object is to strive after the spiritual uplift of its members

(*shreyas*) by living a life of *preyas* which meant ethical and aesthetic good. It does not make renunciation obligatory. The community makes the *guru* a necessary part of its system. The *guru* initiates and the initiation is meant for two classes of people. It is exoteric for the ordinary ones and it proceeds by way lessons conveyed through discourses, dramas, stories, and poems. The initiation is special in the case of the advanced persons and it employs esoteric teaching in four forms of Yoga : (1) Haitha, (2) Laya, (3) Mantra, (4) Raja. The community accepts the traditional four divisions of the Hindu society. It accepts the Kevaladvaita Vedant of Shankaracharya. The initiation is open to all castes and communities and to both the sexes. It has no priests and no church. There is no monetary contribution. The Acharya who died in August 1897, preached in Gujarati, and published several works, some of which were widely read such as Bhamini-Bhushan and Satisuvarna. The two journals *Mahakal* and *Pratahkal*, were very popular. The great Acharya was succeeded by his son, Upendra Bhagvan who died at the age of fifty-two in February, 1937. He was philosopher, dramatist, poet, reformer and organizer and was helped by his wife, Shrimati Jayanti Devi. The Acharya's family at present runs a boarding house, Charitra Mandir. The community celebrates four festivals, the founder's birth date, the Guru Purnima, the birth date of the late Upendra Bhagvan and the Hutashani or Holi week, the last function being known as Sadhana Samarambha, Dramas dialogues and *garbus* mark the celebration of the first three occasions when minute attention is paid to decency, decorum, art, aesthetics and literary style.

Shri Rang Avadhut Maharaj—Shri Rang Avadhut Maharaj was born on 21st November, 1898 at the Vitthal Mandir situated on the western bank of the tank at Godhra. Shri Vitthal Bhat was his father and Rukmini was his mother. His father's native place was Devle in the Ratnagiri district of Maharashtra State. His original name was Shri Pandurang Vitthal Valame. His parents had come to Godhra with a keen desire to worship god, where Pandurang was born. When he was only five years and his younger brother Narayan, three years old, his father died in 1904. After his father's death, Shri Vishwanath Sarpotdar of the Vitthal Mandir took care of this family.

Shri Pandurang left the Baroda College in 1920 and joined the Gujarat Vidyapith and obtained the B. A. degree. From childhood, he was an introvert. After serving for sometime he left Godhra and went to Nareshwar, where he practised penance. By intense devotion to god Dattatraya, Shri Pandurang acquired spiritual powers. As a result, he came to be known as Shri Rang Avadhut and as the *avatar* of Dattatraya. His followers are found all over Gujarat but mainly in the districts of Vadodara, Bharuch, Surat, Kheda, and Ahmadabad in Gujarat and Bombay (Maharashtra). At Nareshwar, in the Vadodara district, his Ashram is built on the Narmada river.

He was a great patriot, author, critic and orator. He worked as a journalist and also an ideal teacher. He believed in the principle of renunciation of (वैचः) gold and (कामिनी) woman.

He had written many good books in the Gujarati language such as ; *Shri Gurulilamruta*, *Avdhuti Anand*, *Upanishad ni Vato*, *Patra-Gita*, *Sangeet-Gita*, *Up-Prarthana*, *Betho Avdhut*, *Ubho Avdhut*, *Datta Bavani*, *Datta Raksha Stotra*, *Datta Shatak*, *Shri Datta Panchpadi*, *Atma Chintan*, *Datta Upasana*, etc.

Shri Avadhut left his mortal body on 19th November, 1968 at Hardwar. His corpse was brought to Nareshwar where his death ceremony was performed with great respect.

Nareshwar, on the bank of the Narmada, is considered as a holy place where Shri Avadhut had started severe penance. His idol has been installed ceremoniously at the great temple of Nareshwar in the presence of many learned men on 31st January, 1971, i. e. Vasant Panchami.

MANNERS AND CUSTOMS

Hindu Customs—Important customs observed by the Hindus are those relating to *simanta* (pregnancy), *upanayana* (thread-ceremony), *vivaha* (marriage) and death.

Birth—Simanta which corresponds to the Vedic *samskara* of *simantonayana* is popularly known as *agharani* or *kholobharvo* (lap-filling) and is performed at the husband's house to celebrate the woman's first pregnancy. This ceremony is not as elaborately observed these days as in the past. After the *simanta* ceremony, the expectant woman generally goes to her parents' house for her first confinement. On the birth of a child, the midwife cuts its naval-cord and buries it in a corner of the compound in front of the house. On the night of the sixth day after birth, the *chhatthi puja* is performed, when *vidhata* or the goddess of Destiny writes the child's future. Generally on the twelfth, but sometimes on some other suitable day, the naming ceremony of the child takes place. The *foi* or the sister of the husband performs the naming ceremony. Names are kept according to signs of the zodiac for which a Brahman is consulted. On some auspicious day, usually in the third month or after a month and a quarter of the birth, the woman returns to her husband's house along with the child with clothes, ornaments and cradle presented to her by her parents.

The Upanayana or Janoi—The *upanayana* or *janoi* (sacred thread-ceremony) as it is called in Gujarati is a Vedic *samskara* involving various acts, one of which is investing the *batuk* (boy) with a *yajnopavita* or

janai (sacred thread). For the *Dvijas*, (twice-born) the thread-ceremony is an essential *sanskara* (purificatory rite) which formally initiates one to *brahmacharyashrama* or the stage of student-hood. Besides the Brahmins, the Lohanas and some Kshatriyas also consider themselves by tradition entitled to the performance of these rites as they are included among *Dwij*.

Marriage and Morals The Hindu *shastras* consider marriage as *sanskara* or a sacrament which calls for the performance of elaborate rites and ceremonies prescribed in the *Gruhyasutras*, to enable a person to enter *grahasthashrama* or the householder's stage.

Marriage ceremonies When betrothal takes place, the proposal usually comes from the girl's side, where social prestige, economic condition and education are mainly taken into consideration. In Patidars and Rajputs, the father of the girl presents *kandora*, brass vessels, *dhoti* and saree at this time. In Bhoi sweets, coconut, *kandora* and Re. 1 are presented by the father of the girl. Sugar or *gur* is distributed among relatives and neighbours. A match is usually decided by the parents and the boy or the girl has hardly any say in it. But in Patidars and other advanced castes, they are allowed to see each other and formal consent is taken. The marriage ceremonies are elaborate. Two to three days before the day of the wedding, the *mandap muharta* (erection of the marriage pandal) and the worship of Ganpati and Gotraj (family deity) take place at both the houses. On the day of marriage or on the day previous, bride's maternal uncle and his wife bring presents (*mosalu*) for the bride and her mother, consisting of *panetar*, her wedding saree, and ornaments especially ivory *chudo* to be worn at the time of the wedding. Similarly, the bridegroom also receives presents from his maternal uncle.

The marriage usually takes place at the bride's place. The *jan* (*barat*) or the bridegroom party starts in procession with a musical band or drummers and pipers in front with the bridegroom and women singing in the rear. If the bride belongs to another place, the further journey to the bride's village or town is completed by any convenient mode of transport such as bus, motor or railway. On their arrival at the destination, a warm welcome or *samaiya* ceremony takes place to receive the *jan* party by the parents of the bride accompanied by their male relations. The party is then carried in procession to the place known as *utara*, specially reserved for their halt. Before the wedding procession starts, women of the bride's party go to the *utara* with *kalvo* consisting of *kansar* (a sweet wheat preparation).

The wedding procession is usually a very grand affair. The bridegroom, who is called *varraja*, receives all the attention as if he were a king for the time being. He rides a horse richly caparisoned or sits in a horse

carriage or a motor car. Bridegroom is welcomed at the entrance by *ponkhvun* ceremony. When the procession reaches the bride's place, the bride's mother waves four times a miniature plough, a grinding pestle and a churning stick, over the head of the bridegroom and places at the bridegroom's feet a *samput* made of two earthen cups or *kodia* painted white and tied together with a red string so that their edges touch each other. The bridegroom treads on the *samput*, breaks it to pieces, then enters the marriage booth, takes his seat in the *mahyaru*, or booth specially decorated for the occasion.

The marriage rites and ceremonies to be performed at the *vivaha* or wedding are generally the same among all the Hindus, though they may vary in some minor details according to different castes and regions. Generally a Brahman priest officiates at the marriage ceremony. The rites commonly in vogue are in order *kanyadana*, *vivaha homa*, *panigrahana*, *lajjahoma* and *saptapadi*. These are interspersed by a number of minor ceremonies such as feet-washing, honey-sipping, rice-throwing, present making, oath-taking, etc. Brahmins and Nagars perform the *charubhaksana* or *charubhaksa* ceremony (mutual eating of cooked rice), when the couple sit in the booth called *chori* and the priest lighting the sacred fire performs a sacrifice (*havan*). The couple then feed each other with *kansar*. The bridegroom's people are then presented with cash and clothes by the bride's father. These presents are customary even among castes which do not perform *charubhaksana* ceremony. The communities which practise dowry have to pay to the bridegroom a very heavy price by way of *paheramni* (dowry). The *jan* or marriage party departs the next morning after performing Ganesh *puja*.

In former times, when child marriage was prevalent, the bride did not accompany the bridegroom when the party returned home. Some near relatives of the bridegroom stayed behind to bring her later on any convenient day. The marriage ceremony at the bride's place ends with *kanya viday*, a farewell ceremony, both pleasant and pathetic, when the girl leaves her parents' roof to become for ever a member of the groom's family. When they reach home, the bridal couple is received ceremonially at the groom's house. They then together offer worship to the *matrukas*, *gotraj*, *Rannadevi* or any other nuptial deities installed in the household at the commencement of the marriage ceremony. The bride and bridegroom then untie the *mindhal* (*vandia dumetorum*) from each other's wrist, feed each other with *kansar* and play with *kodis* (shell-money). With a *vadhamana* or thanks giving at the temple of the village deity, the marriage ceremony ends.

The Hindu *shastras* ordain that a person should not marry in his own *gotra* and within six degrees of relationship on the father's side and

four or five on the mother's side. Usually, the *gotra* of the father alone and not that of the mother is considered when a marriage alliance is contemplated. Even this restriction has been showing signs of relaxation in recent times.

Moreover, a Hindu is supposed to marry within the same caste or sub-caste as a general rule. Any marriage outside the caste is considered contrary to the caste custom. These restrictions are gradually loosening and marriages outside the caste and sub-caste are on the increase particularly among the advanced and educated and also among the economically better off classes.

The Hindu scriptures enjoin that the bride be given as a gift to a suitable bridegroom. This is called *kanyadana*. In course of time, it has come to be associated with the giving of a dowry which causes acute hardship to the poor. In response to a strong agitation against the continuance of this social evil, an Act abolishing the giving or taking of dowry at the time of marriage was passed by the Indian Parliament in 1960, and any contravention of this law is made penal. Still dowry system is prevalent in some caste particularly Patidars.

Recent Trends—With the spread of education, social legislation and high cost of living, the social outlook of the people on marriage has considerably changed in recent times. A number of undesirable social customs which were strictly observed in the past have lost their significance under the changed circumstances. The practice of child marriages, which was common in former times, has almost disappeared and the age of marriage has substantially advanced both in case of males and females. In the case of males, the age has gone normally beyond 20 years and in the case of females beyond 18. Child marriage has been declared unlawful by the Central legislation (the Sarda Act of 1927). Most of the restrictions which were accepted as a matter of course and scrupulously observed in the past, are being relaxed to suit the modern trends of thought and ways of living. Civil marriages, which were unknown in the past, are now-a-days on increase. Inter-caste marriages have also started taking place among the younger generations especially in the urban areas. Bigamy is prohibited by law and made penal. Widowhood is considered a curse, but restrictions on re-marriage in certain castes continue. Divorce is now permitted under the law, but its extent among the higher castes is comparatively less and resorted to only under special circumstances in the district. In case where divorce is obtained by having recourse to a court of law under the Hindu Marriage Act of 1955, it is easier for the divorced male to remarry than the divorced female. Remarriages are, however, common among the lower castes where the custom known as *natra* is prevalent. Widow re-marriage in the form of *diyarvatu* that is to say levirate is permitted and practised among some of the lower castes.

To sum up, under the pressure of social and economic development and spread of education, cases of civil marriage have recently increased. Time taken by the marriage ceremonies is being curtailed, the accent being on spending more time and money on reception and ostentation. Secondly, the widow re-marriages, are on the increase among the middle and higher classes, as a result of the permissive divorce law, change in the attitude towards marriage and economic independence and due to spread of education. As regards expenditure, the castes and classes, which have become rich under the Five Year Plans after Independence, indulge in conspicuous consumption, whereas those particularly the middle class people, restrict expenditure on marriages as far as possible. Lastly, the marriage bonds are loosened not only by the permissive divorce law but by the girls gaining economic independence as a result of spread of education and gainful employment. By and large, the attitude towards marriage is undergoing rapid transformation in the permissive society and a tendency is developing to treat it more as a contract rather than a sacrament.

The following statement gives details about never married, married, widowed and divorced persons in the district according to 1961 Census.

STATEMENT III-12

Marital Status

Marital Status 1	Total		Rural		Urban	
	Males 2	Females 3	Males 4	Females 5	Males 6	Females 7
Total Population..	801,026	726,300	588,009	541,823	213,017	184,477
Never married*..	436,162	329,477	313,174	242,293	122,988	87,184
Married ..	334,117	331,669	250,750	252,710	83,367	78,959
Widowed ..	26,622	62,901	20,564	45,179	6,058	17,722
Divorced or Separated ..	4,124	2,253	3,521	1,641	603	612
Status unspecified..	1	..	..	..	1	..

*The figures include persons (1) who have not reached to age of marriage and (2) who though attained the age of marriage, have not married for various reasons.

Source : District Census Handbook 1961, Baroda, p. 120.

Death Ceremonies—The Hindus consider it necessary to perform certain after-death ceremonies to propitiate the dead. When a person is breathing his last, holy water of Ganga is put into his/her mouth. Religious books are read near the dying person in upper classes. The relatives and neighbours assemble and a pair of bamboo is prepared and the dead body is taken to the cremation ground. Females do not go to the cremation ground but follow the funeral procession upto the corner of the street weeping return home after taking bath near a well or a pond. Males wait at the cremation ground till the dead body is completely burnt. Ashes or *phul* are collected on the same or the third day. Memorial rites or *shraddha* are performed from the tenth and continued till the thirteenth day after death. On the twelfth day is performed what is called *sapindikarana* whereby the dead severs all earthly connections and joins the *pitru* (manes). On the thirteenth day of the *shraddha*, various utility articles in daily use are gifted to the family priest or to the daughter so that the deceased may enjoy them in another world. During the first year, *masio* or *masiso* (monthly), *chhamasi* (half yearly) and *varsi* (yearly) *shraddhas* are also performed.

Muslim Customs—The chief Muslim rites and ceremonies relating to pregnancy and birth, initiation and marriage as followed by Muslims in general and Sunnis in particular are described below.

Birth—The first pregnancy ceremony is performed in seventh or ninth month at the husband's house while the first delivery is usually performed at her parental home. The expectant woman goes to her father's house. On the seventh, fourteenth or twenty-first day after child birth, the Muslim rite of *akika* sacrifice is performed in two parts, namely, the shaving of child's head and the killing of one or two goats. The ceremony of *botan* (feeding) is performed when the child is four and half months old.

When the child completes four years, four months and four days, the *Bismillah* ceremony which consists of taking the name of god, is performed. The child is made to repeat, after the priest, the opening chapter of the Quran and the relatives are given a feast to commemorate the occasion. The *khatna* (circumcision) ceremony is performed when the boy becomes six or seven years old. There is rejoicing when a boy or girl observes the first Ramzan fast.

Marriage (Nikah)—Child marriages are not prevalent. Usual age at which marriage takes place is 20-22 years for boys and 15-18 years for girls. Generally the proposal comes from the girl's side and when betrothal is decided the girl's father comes to the boy's place and gives Rs. 5 to the boy in token of engagement. In general, a Muslim marriage lasts for two or three days. On the day of marriage, the bridegroom's relatives

go to the bride's house in a procession called *bari* or *sachak* carrying in trays gifts of sweetmeats, dried fruits, ornaments and articles of dress for the bride. The party comes back with their trays refilled with clothes for the bridegroom. Sometime during the early hours of the night, the groom puts on the wedding clothes and with *sehra* (flower sheet) fastened round his forehead mounts on a horse, and starts in a procession accompanied by friends and relatives with a funfare of musical band in front. At the bride's house, the bridegroom is led to his seat. Then the Kazi asks the bride's agent whether she accepts so and so as her husband in consideration of *meher* (dower) as decided. If she nods assent, he takes the declaration of two other witnesses. He then puts the same question to the bridegroom. The *meher* or bride price varies from Rs. 200 to 500. The amount of *meher* is recorded in a document known as *doriya*. This agreed amount is not paid in cash but is payable on demand only. Similarly there is a custom of *dahej* or *dejdari* where in different kinds of vessels, cots, mattresses, etc., are given to the bride by her parents. The Kazi records these proceedings and showers his blessings on the married couple. The *nikah* or wedding ceremony is followed by an entertainment programme after which the bridegroom returns home with the bride.

Marriages, between cousins, both parallel and cross, are not prohibited among the Muslims, preference being given to the first cousin. However, sister's daughter is under incest taboo. A Muslim cannot marry his foster-mother or foster-sister, unless the foster-brother and sister were nursed by the same woman at intervals widely separated. The Quran permits polygamy which allows four wives. But due to the economic pressure, it is rare. A man may not marry his wife's sister during his wife's lifetime unless she has been divorced. Widow re-marriage is in vogue but is avoided by many as a mark of social superiority. A widow can marry her deceased husband's brother or relative and a widower can marry his deceased wife's sister or relative. *Talaq* (divorce) is recognised by Mohammedan Law at the option of the husband, but among higher classes is resorted to only as a last resort, when all attempts at rapprochement fail.

Death-Ceremonies—To a person about to die, the Sura-e-Yasin from the Quran is read out in an undertone. The creed and prayer for forgiveness are recited so that the dying person may also repeat it, and a few drops of honey or sugared water are put into his mouth. After he breathes his last, the dead body is bathed and placed in *janaja* or *kafan*. Flowers are placed on it. A *kafan* (Shroud) consisting of three white pieces of cloth to which two more pieces, namely, *simaband* and *odhani* are added in the case of a female, is put on the dead body. Then the pier is lifted on the shoulders of relatives and other Muslims and borne away to the graveyard, where the last prayers are offered. Till the third day, no food is cooked in the house of mourners. But friends or relatives of the deceased

send cooked meals or cook them at their expense at the house of mourners. On the third day after death, *jiyarat* ceremony is performed wherein relatives are feasted. On the 40th day *ghadi* ceremony is performed, when the relatives and friends are feasted. On this day relatives visit the *kabrasthan* and offer *dhup* or *agarbatti* and put flowers on the tomb. Thereafter they visit the tomb only on religious occasions. The only form of mourning laid down by the Mohammedan Law is the strict seclusion of the widow in the case of the death of the head of family. Unless forced to do so, she never leaves the house for four months and ten days. Besides this some of the customs prevalent among the Hindus are also practised. The widow breaks her bangles and never again wears them. She does not put on a nose-ring. If she is young, she wears dark coloured dress; if old, a white one.

Christian Customs

Birth—Christians are converts from different Hindu castes and bring their old customs with them. Most of them are from the backward classes and were converted during the famine of 1900-1901. Some families and especially village Christians observe their old customs. The ceremony of *simant* is not common among Christians. The first delivery is performed at the woman's parents' house. People generally take woman to the hospital for delivery. Some of the village Christians take the help of a *dai*.

Naming and Baptism—Christians bring their children for naming and a *Baptism* ceremony in the church building. Christians who practice adult baptism bring their children to dedicate them to the Lord in the church building. These services are performed in the church building by a Minister during worship service on Sunday.

Marriage—When a boy or a girl becomes of marriageable age, their parents find a match for them. The consent of the boy or girl is generally taken. An *engagement* ceremony is arranged. Both parties meet together at the girl's parents' home. The Minister is invited and, in his presence, the engagement is performed with prayer and worship. A set of clothes is given by the boy's parents to the girl. Christian marriages are solemnized according to the Christian Marriage Act, 1972. A Minister is given a licence by the Government to solemnize marriages. Both parties fix a date for the marriage and give notice of their intended marriage to the Minister. Their intention is published by written notice on the church notice board or by an announcement during Sunday worship. The following elements are present in any solemnization of a Christian marriage : (i) A declaration by each party (*i. e.*, the man and the woman) that they know no impediment why they may not lawfully be joined together in marriage. (ii) Assent and

pledge by the bridegroom and the bride to live together till death separates them. (iii) The placing of a ring on the woman's finger by the man (or the placing of a *mangalasutra* on the woman by the man). (iv) Declaration by the Minister in the name of the Holy Trinity that they are husband and wife.

Every marriage, under the Christian Marriage Act, takes place between 6 a. m. and 7 p. m. Relatives and friends of both parties are invited to attend the marriage feast. The bridegroom bears all the expenses (agreed) for the feast. The bride and the bridegroom are given presents by their relatives and friends. Now a days there is tendency to adopt local practices in case of marriage.

Christian marriages are registered at the Government Marriage Registrar's Office. The re-marriage of widows is permitted.

Divorce—It is very difficult for Christians to get a divorce. Instances of separation or divorce are rare. In case of serious family dispute, the Minister is called and the differences between the couple are sorted out. If the case is not settled, the parties may decide to live separately. A divorce can only be obtained through a court of law (Indian Divorce Act 1869-modified up to 15th March, 1934). It is very unusual for persons to be re-married in the church as long as his first partner (or her first partner) is still alive.

Death—When a death occurs in the family, relatives, friends and the community assemble. The funeral ceremony is conducted by the Minister in the home. The Bible is read, songs are sung and prayers are offered. Some Christians put the dead body in a coffin (wooden box) and some use a bier of bamboo poles. The body in the coffin is buried in the cemetery. The Minister reads the Bible and says prayers at the grave side. Even the women may come in the funeral procession to the grave. Christians believe in the resurrection of their dead and hope to meet their dead ones at the time of the day of judgment when Christ comes again in to the world.

SOCIAL EVILS AND CRIMES

Most of the people of the district are free from such social evils as drinking, gambling, prostitution, etc. A section of them comprised tribals who are habituated to drinking during ceremonial occasions such as marriage or festivals. Such cases do occur among other backward classes also. The evil of gambling exists to a certain extent. Varli-Matka gambling is commonly found both in towns and villages. The following statement gives details of the nature of crimes committed and number of persons connected with these crimes.

STATEMENT III-13
Offences Registered in the District

Sl. No 1	Offence 2	Year							
		1965 3	1966 4	1967 5	1968 6	1969 7	1970 8	1971 9	1972 10
1	Crimes against State	..	..	..	..	..	..	..	..
2	Crimes against Society	..	..	..	..	77	..	17	7
3	Crimes against Property	.. 478	.. 596	.. 711	.. 651	.. 609	.. 889	.. 1,079	.. 1,279
4	Crimes against Person	.. 271	.. 264	.. 234	.. 245	.. 251	.. 292	.. 392	.. 566
5	Crimes connected with Prohibition	the 1,570	1,858	1,891	2,162	2,303	3,331	4,854	6,162
	Total ..	.. 2,319	2,718	2,836	3,058	3,240	4,512	6,342	8,014

Source :

The District Superintendent of Police, Vadodara City District, Vadodara.

According to the statement there is not a single crime recorded against the State, while there were 77 crimes recorded against society in the year 1969, but this has been reduced to 7 in 1972. The cases of crimes against property are found increasing from 478 in 1965 to 1,279 in 1972. This indicates growing economic insecurity and poverty. The crimes against persons as recorded by the District Superintendent of Police were 271 in the year 1965. In 1972, they rose to 566. The crimes connected with prohibition were 1,570 in the year 1965, and rose to 6,162 in the year 1972. The last two categories of crimes are more or less, related to tribal people. Tribals, so often, resort to murders because of personal jealousy, women and vengeance. The cases of murders are generally connected with dispute about land or woman. Among the tribals, sex-life is very loose. Pre-marital sex relations with consent, rape, violation of sex taboos, kidnapping of married women and adultery are common cases of crimes among them. The tribals are poor as a class, and as such, they are devoid of basic necessities of life. They, therefore, often resort to petty thefts, robbery and dacoity. The increasing number of prohibition cases indicate the vigorous enforcement of prohibition laws by the authority.

SOCIAL LIFE

Property and Inheritance

As regards inheritance and succession, the Hindus are governed by the Hindu Law and the Muslims by the Muhammadan Law. The system of Hindu Law, which is followed in Gujarat is the Mitakshara system in general and the Vyahara Mayukha system in particular. The main principle of inheritance is that the property of a Hindu is never held in abeyance, but devolves on the sons on the death of the father. Under the coparcenary law

in force in Gujarat, the son acquires a right in the ancestral property from the date of his conception; but the self-acquired property can be disposed of by a person as he wills, as the son does not get any inherent right in such property. The disabilities in respect of inheritance and succession from which women suffered in the past have been removed by the legislature by enacting special laws like the Hindu Marriage Act, 1936, Hindu Women's Right to Property Act, 1937, and the Hindu Succession Act, 1956, which have introduced fundamental changes in the status of women.

The Hindu Marriage Act provides for monogamy and makes bigamy penal. The Hindu Succession Act while breaking violently with the past lays down uniform system of inheritance and provides for equal treatment of a male and a female. When a Hindu male dies intestate, his property devolves in equal shares on his son, daughter, widow and mother.

Joint Family—The Hindu family is from time immemorial joint in food, worship and estate. It consists of the head of the family, his wife, their sons married and unmarried, unmarried daughters and grand children living and working together. It was the responsibility of the head of the family to get the younger members of the family married at the proper time, offer oblations to the dead, and propitiate tutelary deities. The joint income of the family was spent after all the members according to individual needs. The widowed, the orphaned, the aged and the disabled were duly looked after. With the passage of time, the bonds of joint family system have begun to loosen and the desire for individual freedom and living has necessitated a change in the concept of the family as an economic unit. The need of getting higher and specialised education has separated the younger members from their family for studying at colleges which are located in towns and cities. With the spread of industrialisation and the increasing pressure of population on land, the village people have moved to large industrial centres to secure gainful employment. A large number of joint families have thus begun to disintegrate and the old social order characterised by the joint family system has been undermined under the stress of modern economic conditions and ways of life. Younger members of the family prefer to live separate rather than continue joint and are particular about their own needs and comforts in preference to those of other members of the family. Despite these changes, the joint family system still survives though in a diluted form without the former attachment brought about by the spirit of sacrifice and regard for common welfare.

Place of Women in Society—Women occupied a high position in the Hindu society since the ancient times. Lord Manu had declared that gods reside in those households where women are respected. (यत्र नर्यस्तु पूज्यन्ते रमन्ते तत्र देवता : ।) The husband who casts off his innocent wife was punished by the king and vice versa. The wife, likewise, was supposed to worship her husband as god (पतिं देवो भव ।) and to remain faithful to him. The status of women, however, declined after the Muhammadan

invasions when seclusion or *pardah* and child marriage came into vogue during the middle ages after 1293 as a measure of safety and protection of females. The practice of *pardah* continued, thereafter, particularly among the Rajput chiefs, and the Zamindars as a mark of social status. Their women folk remained confined to the four walls of their houses. The seclusion was stricter in villages than in towns, and greater among the Muslims than among the Hindus. But things have changed much in modern times and the former seclusion of women has well-nigh disappeared and became the thing of the past. Because of liberal policy of Sayajirao and introduction of compulsory primary education, the women in Baroda State enjoyed greater amount of freedom and had better opportunity for progress. Due to social reforms of the State, there was great awakening among the women in the State. The district had the fortune to have women workers of all-India standing.

The advent of Gandhiji on the scene ushered in an era of equality and liberty after 1920. During the second half of the present century, the desire for a rise in the level of living and soaring prices have created problems, unknown in the past. For the most part, it is men, who are engaged in economic activities though in rural areas among the cultivating classes, women give helping hand to their male partners in rearing cattle, looking after crops and assisting them in agricultural operations. It was only in towns that women were completely dependent on men and did not take part in any economic activity. At present, in the urban areas with the spread of education, women have come out of their homes for employment in social and economic spheres. Women of the labouring classes have always taken an active part along with males by getting themselves employed in occupations involving manual labour. In the district, women have made their mark as a teacher, lawyer, doctor, nurse, writer, political or social worker and even as an administrator.

HOME LIFE

Housing

In the district, according to the 1961 Census, the total number of houses were 367,335, of which 282,967 (77.03 per cent) were used as dwellings, shop-cum-dwellings and workshop-cum-dwellings, 28,830 (7.85 per cent) were vacant and the rest 55,538 (15.12 per cent) were used for non-residential purposes. Of the total houses, 71.36 per cent of the houses were in rural areas and 28.64 per cent in urban areas. Taking the district as a whole, on an average, out of every thousand Census houses, 241 were vacant as against 759, which were occupied. In all talukas of this district the proportion of vacant houses was less than the district average, the smallest being 24 in the Chhota Udepur taluka. The houses remained vacant as the owners stayed outside the district for service, business and

other economic pursuits. Generally the house owners do not give their houses on hire during their absence so that when they return, the vacant houses may be available to them for temporary stay during school vacations or marriage season.

According to the 1961 Census, the number of households was 286,089, as compared to dwelling houses which numbered 282,967. 73.43 per cent of the households lived in owned houses and the rest 26.57 per cent in rented houses. The proportion of owned houses was comparatively less in towns than that in villages. In urban areas only 34.54 per cent of the households lived in their own houses, while in rural areas the percentage was as high as 87.90. The higher proportion of rented houses in urban areas indicated the increased demand for the houses by the persons concentrated in urban areas due to industrial growth.

Most of the houses in villages had walls of mud or burnt bricks plastered with clay and cowdung emulsion, though grass, leaves, reeds (wattle and daub) or bamboo were in frequent use in the construction of hutments of those who were poor. The roofs were mostly covered with *deshi* or country tiles, though the preference for Vilayati or Manglore tiles is nowadays patent in some villages. The flooring in a majority of village houses was of beaten earth covered with cowdung emulsion which is believed to possess certain antiseptic properties. Stone and cement tiles are used in houses of the well-to-do people.

In the Vadodara city, 84.88 per cent of the dwellings were built of burnt bricks, 4.85 per cent of unburnt bricks, 4.79 per cent had mud walls, 3.29 per cent had walls of grass, leaves, reeds or bamboo, while 52.57 per cent of the dwellings had roofs of corrugated iron, zinc or other metal sheets, 24.03 per cent had roofs of grass, leaves, reeds, thatch, wood or bamboo, 12.64 per cent had concrete and stone roofs, 7.12 per cent had tiled roofs and 2.05 per cent had roofs of cement sheets and asbestos.¹

Layout of Towns and Villages

Towns—The general layout of large-sized villages and towns in this district appears to be essentially the same. The traditional structure of wards according to the castes or occupations still exists. As in the case of the villages, towns are also situated either on the bank of the river or some elevated grounds or in a hilly tract. For example, Chhota Udepur, Sankheda and Bahadarpur are situated on the banks of the river Orsang while Sinor

1. The statements are reproduced at the end of this chapter from the Housing and Establishment Tables, Census of India 1961, Vol. V., Part IV-B.
- (i) Statement III.19 showing Census houses and the uses to which they are put.
- (ii) Statement III.20. showing Distribution of sample households living in Census houses used wholly or partly as dwelling by predominant material of wall and predominant material or roof.
- (iii) Statement III.21. showing Sample households classified by number of members and by number of rooms occupied.

is situated on the bank of the river Narmada. Most of the towns were in the past, capitals of the State or the seats of some estate-holder or administrative division and generally they were protected by forts. The towns of Dabhoi, Sankheda, Chhota Udepur and Sinor are still surrounded by walls with gates in ruined conditions. The construction of Vaghodia town is like a turban. Towns and large sized villages (Naswadi, Boriyad, Palsani etc.) which were in the past the principalities or the seat of some estate-holder, had their *darbargadh* either in the centre or on one side of the village around which various castes were distributed in the traditional order. The *darbargadh* was the centre of all activities so all roads led to *darbargadh* and the towns grew radially either in semi-circular way or became the dead end near a hill or river. In towns, the main roads passing across the central area branched off into minor roads leading to the residential area distributed according to the functional characteristics of castes, viz., Brahman Faliyun, Sheth Faliyun, Desai Sheri, Mali Vado, Chhipa Vad, Vankar Vas, etc. Some of the residential areas are known by the prominent persons of the castes, while some of the lanes are named after the temple, gods and goddesses situated in town. Recently the name of the new streets in the towns are often associated with names of social and political leaders. Generally in every town, there is a central place known as *chowk* with public place called town-hall and Municipal hall or 'Panchayat House' which serves as a meeting place for elderly persons or a public forum where the common problems are discussed. Though traditional pattern in the construction of the building is very common, the new and modern trends in construction work are also found in towns like Vadodara, Chhota Udepur, Vaghodia, etc., in the district.

Villages—As regards small sized villages, the old pattern remains generally unchanged. Generally, the villages in this district are situated where the natural resources are available for habitation such as watersupply and cultivable land.

In general, every village has localities earmarked for different castes or occupational groups. They follow the traditional function. In a good number of villages, there is a central place known as *chowk* with public place called *chora* or a Panchayat House which serves as a meeting place for elderly persons or a public forum where the common village problems are discussed. Close to the village gate, and often outside, is what is known as Harijanvas, where the Scheduled Caste people reside in their mud-walled hutments.

The houses of the higher classes are generally in the centre of the village followed by those of artisan and service classes (the Vasvayas). The integrated lay out of the houses also varies according to the castes. The houses of traders or artisans are usually shop-cum-dwellings or workshop-cum-dwellings. A Brahman house is usually provided with a separate kitchen and water-room with a corner reserved for worship of the household

deity. The tribal people like Rathawa, Nayaka, etc., have no village site or group of houses. Each man lives in his own field. To them, the main use of house was safety and protection of their scanty belongings and cattle against adverse climatic conditions, wild animals and thieves.

Furniture and Decoration—The type of furniture used and decorations made in the households in a way reveal the status, the economic condition and the cultural background of the householders. It is an essential item for comfortable living. In urban households, various types of furniture are usually found. A rich family residing in a spacious residence with separate bed-rooms and drawing-rooms usually has a sofa-set, a few chairs, teapots, dining and study tables, bed-steads and other items of furniture made of wood. A radio-set, wooden or steel cup-boards and decorative mirrors, attractive wall-clocks, etc., are other items of a well-to-do family. An ordinary educated middle class family too has some pieces of furniture on a moderate scale. Others are satisfied with a simple cot, a chair or two of ordinary type. *Hinchko* or a swing cot seems to be favourite with all classes of people. The one used by the poorer classes is cheaper because it is made of simple wooden planks.

People in villages are not furniture oriented. A well-to-do cultivator uses cots or a few chairs, a *pat* or swing, a mirror, a simple wall-clock and a wooden cup-board or a *patara* to store his valuables. Houses of well-to-do families in urban areas are decorated with curtains, flower-pots, table lamps, pictures and delicate pieces of wood-work. The ordinary family generally has a picture or two or a calendar on the wall for decoration. In an orthodox household (both in cities and villages), doorways are decorated with *torans* made of glass beads. The *chaklas* or square pieces of beautifully embroidered in traditional designs or worked in bead are the popular mode of wall decoration. In the houses, walls are also decorated with pictures of gods and goddesses. The Muslims generally prefer wooden and glass furniture while the tribal people like Rathawa, Nayaka, etc., in general do not decorate their houses.

FOOD, DRESS AND ORNAMENTS

The Hindus are mostly vegetarian in this district. They normally take two meals a day, but those doing physical work including labourers in urban areas, agriculturists, field workers and village artisans in rural areas take three meals a day—the breakfast in the morning between six-thirty and seven, the full meal in the noon between twelve and one, and supper at night after seven or eight. The Jains are the only exceptions, to this rule because their religious precepts enjoin them to finish evening meals before sunset. The Rajputs, Backward classes, and Muslims take non-vegetarian food. During the last fifty years, tea has become a popular beverage among all classes of people. The statement below gives details about the food pattern of the people.

STATEMENT III-14

Food of the People

Community/Group/ Castes 1	Rural/ Urban 2	Morning meal between six thirty and seven a.m. 3	Afternoon meal between twelve noon and one p.m. 4	Evening meal between seven and eight p.m. 5
<i>Hindus</i> Agriculturists, Field- Artisans, workers and Labour- ers.	Rural Urban	<i>Rotla</i> or loaf of <i>bajri</i> or <i>jowar</i> , or <i>makai</i> or <i>banti</i> with tea or milk or curd or <i>chhas</i> , onion, chillis.	<i>Rotla</i> or loaf of <i>bajri</i> , <i>jowar</i> , <i>makai</i> or <i>banti</i> with curd or <i>chhas</i> , chillis, vegetables and pulses.	<i>Rotla</i> , <i>chhas</i> or buttermilk with <i>khichadi</i> , <i>bhaidku</i> of <i>jowar</i> <i>bajri</i> or maize flour.
Common people..	Rural Urban	Breakfast with tea or milk. "	<i>Rotla</i> or loaf of <i>bajri</i> or <i>jowar</i> or <i>makai</i> or <i>banti</i> with milk, curd or <i>chhas</i> , onion, chillis, <i>dal</i> or curry and rice. " <i>Rotli</i> , <i>bhat</i> , <i>dal</i> or curry, vege- tables, pulse, <i>chutney</i> . <i>Rotli</i> or loaf of <i>bajri</i> , <i>rotli</i> , vege- tables, <i>dal</i> or curry and <i>bhat</i> . <i>Rotli</i> , <i>bhat</i> , <i>dal</i> , or curry, vege- tables, pulse, <i>Kachumber</i> (salad) <i>chutney</i> , pickles, <i>pepad</i> , curd, or buttermilk. Urban Breakfast with tea or coffee or milk. Rural Breakfast with tea.	<i>Bhakhari</i> , <i>rotla</i> , milk or <i>chhas</i> or buttermilk with <i>khichadi</i> , <i>bhaidku</i> of <i>jowar</i> , <i>bajri</i> or maize flour. " <i>Bhakhari</i> or <i>puris</i> , milk and vege- tables. <i>Rotla</i> , <i>chhas</i> or buttermilk, <i>khichadi</i> , <i>bhaidku</i> of <i>jowar</i> , <i>bajri</i> , or maize flour. <i>Bhakhari</i> or <i>puris</i> , milk, vegetables, <i>dal</i> or curry and <i>bhat</i> . <i>Rotli</i> or <i>rotli</i> , <i>khichadi</i> , with one vegetable or non-vegetarian item.
Rich/Backward classes/Muslims.	Rural Urban	Breakfast with tea. "	<i>Rotli</i> or <i>rotli</i> , <i>bhat</i> , with non-vege- terian items like eggs, chickens, hens, fish and flesh of birds and animals. "	

Source : The Taluka Development Officers, Vadodara District.

Dress

The type of dress varies according to sex, age, marital status, caste, economic condition and seasons.

There is no remarkable difference in the dress put on by the people in the district from those in other parts of the State. The youngsters have commonly adopted shirts or bush-shirts and modern pants. The head-dress of any kind has gone almost out of fashion among the younger generation, only some of older people, social workers and merchants use it.

In winter to protect from the cold, people prefer woollen clothes, such as suit, coat, jersey, sweater, lady-coat, etc., while in other season they normally put on cotton, terene and terry-cotton clothes.

During the last three decades, the dress styles have undergone a tremendous change. The starting of the Swadeshi movement by Mahatma Gandhiji who stressed simplicity in dress was responsible for the change in dress of the people. The sophisticated classes of society discarded foreign cloth and some made the bonfire of foreign clothes and readily resorted to simple clothing made of *khadi*, which had become an emblem of nationalism. The shortage of cloth during the World War II, which continued in the post-war period was another reason for the change in attire. The following statement gives details of the dress pattern of different castes and social groups.

STATEMENT

Dress of

Community/ Caste Group	Rural/ Urban	Males		Males Headwear
		Upper garment	Lower garment	
1	2	3	4	5
Hindus Vania, Brahman, Patel, etc.	Rural	<i>Khamis</i> or shirt or <i>kafni</i> or bush shirt or <i>bandi</i> or coat.	<i>Dhoti</i> or <i>payjama</i> , pant or <i>lengho</i> or <i>lungi</i> or <i>panchiyu</i> .	<i>Topi</i> .
	Urban	"	"	"
Rajput	Rural	Shirt or bushshirt.	<i>Surval</i> or <i>payjama</i> or <i>dhoti</i> .	<i>Fento</i> or <i>Safo</i> or <i>topi</i> .
	Urban	"	"	"
Tribal people.	Rural	<i>Bandi</i> , put on dress only in civilised soci- ety.	<i>Langoti</i> , put on dress only in civi- lised society.	<i>Faliyu</i> .
	Urban	"	"	"
Bharwad	Rural	<i>Bandi</i> .	<i>Dhoti</i> .	"
	Urban	"	"	"
Maharashtrian.	Rural	Shirt or <i>kurta</i> , <i>barakasi</i> .	<i>Dhoti</i> or <i>payjama</i> .	<i>Pagadi</i>
	Urban	"	"	"
Muslim	Rural	<i>Khamis</i> , <i>Jabhho</i> , <i>Shervani</i> .	<i>Payjama</i> , <i>lengho</i> , <i>chudidar payjama</i> , lungi, pant.	<i>Topi</i> or turkish or fur cap.
	Urban	"	"	"

Source :

The Taluka Development Officers, Vadodara District.

III-15

the People

Females		Boys		Girls	
Upper garment	Lower garment	Upper garment	Lower garment	Upper garment	Lower garment
6	7	8	9	10	11
<i>Sari</i> , blouse or <i>choli</i> .	<i>Ghaghara</i> or <i>chaniyo</i>	Shirt, bush- shirt.	Modern pant, <i>lengho</i> , <i>chaddi</i> , etc.	<i>Sari</i> , blouse or <i>choli</i> , and froek.	<i>Chaniyo</i> , skirt.
"	"	"	"	One piece skirt, blouse.	Mini-skirt, bell bottom and vari- ous type of pants.
"	"	"	"	<i>Odhani</i> , <i>choli</i> , froek.	<i>Chaniyo</i> .
"	"	"	"	"	"
<i>Choli</i> or <i>odhani</i> or <i>kapdi</i> , or <i>Lugadu</i> or <i>sari</i> or blouse.	<i>Chaniyo</i> or <i>ghaghara</i>	<i>Bandi</i>	<i>Langoti</i>	<i>Polku</i>	<i>Ghaghari</i>
"	"	"	"	"	"
<i>Odhani</i> , blouse	<i>Chaniyo</i>	Shirt, bush- shirt.	<i>Chaddi</i> , <i>lengho</i>	<i>Odhani</i> or blouse	<i>Chaniyo</i>
"	"	"	"	"	"
<i>Sari</i> , blouse	Petticoat	"	"	"	"
"	"	"	<i>Chaddi</i> , <i>lengho</i> , pant	"	"
<i>Kurta</i> , <i>dupatta</i> froek.	<i>Payjama</i> , <i>liar</i> .	<i>Khamis</i> , <i>jabhho</i> , <i>shervani</i>	<i>Lengho</i> , pant, <i>lungi</i> <i>payjama</i>	Punjabi froek, <i>Dupatto</i> <i>Sari</i>	<i>Payjama</i> , <i>chudidar</i> , <i>ijar</i> , <i>gharara</i> .
"	"	"	"	"	"

Ornaments To decorate and enhance beauty and forms, ornaments are used both by males and females from time immemorial. Used mainly for emphasizing one's outward appearance, ornaments have undergone changes from time to time according to the prevailing fashion. They also differ from community to community. The change is effected not only in their style or design but also in their size, shape, weight and contents. The ornaments used in the past were generally simple, but were solid and heavy. Those in vogue at present are much lighter, refined and sophisticated in design. There is a tendency to use more and more light silver ornaments in preference to heavy gold ornaments due to the high price of gold and as a measure of economy. In the past, ornaments used to serve both as decoration and investment and insurance against economic difficulties. The statement below gives details of the ornaments used by the people.

STATEMENT III-16

Ornaments of the People

Caste group 1	Rural/Urban 2	Male Ornaments 3	Female Ornaments 4
Vania, Brahman Patel, etc. }	Rural	<i>Kanthi</i> or chain round the neck, gold or silver ring in finger gold or silver chain with buttons on their upper garment, wrist watch.	<i>Ohhada</i> , <i>Sankala</i> , or <i>Zanzar</i> on the feet, <i>Patla</i> , <i>Pouchi</i> or bangles on the wrist, <i>kada</i> or locket on the arm; <i>hansdi</i> or chain or necklace or <i>achhada</i> or <i>barmala</i> around the neck and <i>mangal sutra</i> if married; earring or <i>loriya</i> or <i>kadi</i> or <i>butti</i> made of gold or pearls or precious stone set in gold on ear and <i>kandora</i> on waist; ring on finger, <i>chuni</i> , <i>nath</i> or <i>chank</i> in the nose and wrist watch.
	Urban	<i>Kanthi</i> or chain round the neck, gold or silver or jewelled ring on finger, wrist watch.	"
Tribal and other backward class }	Rural	<i>Kada</i> on hand, <i>ranka-diya</i> on ears.	Silver <i>tokri</i> on ears, <i>Bahariya</i> or silver <i>kada</i> on hand, <i>kalla</i> on feet, silver or ivory plated <i>har</i> around the neck, <i>jela</i> on head
	Urban	"	"

Source :

The Taluka Development Officers. Vadodara District.

COMMUNAL LIFE

The Garba and Ras

Folk-dance called *garba* or *rasda* is a very interesting and important form of cultural activity. The word *garba* is derived from 'Garbha Dipa'. Its origin can be traced to the religious celebrations of the people. *Garba* and *ras* are generally performed both by men and women especially during the Navaratri festival (the first nine days of the Hindu month of Ashvin) and are the commonest form of celebrations in Gujarat. *Garbi* is generally played by males and is more vigorous and quicker in rhythm as compared with the *garba*, which is played by women. *Garbis* of poet Dayaram of Dabhoi are famous.

Bhavai and Ram-lila

Bhavai is another traditional mode of entertainment. It is a folk drama performed at night, and having as its themes, some religious or social anecdotes which are didactic and entertaining. *Ram-lila* is also a type of folk-drama. It depicts the life of Lord Rama, and is played in the villages. It gives entertainment with religious teachings. It substituted the theatre, when there was no organised theatre in rural areas.

The *bhavai* used to provide good diversion to village folk. Its usefulness still lies in its spontaneity, its folk-lore and entertainment to the villagers who easily follow and enjoy it. It brings entertainment cheaply to their door-steps. After Independence, efforts are, therefore, being made to revive the folk-art, *bhavai*, by the State as a form of popular entertainment. The *bhavai* is one of the important items in the annual drama festival organised by the Gujarat State. Shree Chandravadan Mehta has made an experiment by writing plays on this model.

Modern Stage—A number of professional dramatic companies visited Vadodara and had their peak period from 1870 to 1915 A. D. Most of the actors were provided by the Naik or Bhojak community and they provided entertainment by frequent visits of various towns. After 1925 there was a demand for reformation of the stage and dramatists like Chandravadan Mehta, Ramanlal Desai, etc., gave one act plays and dramas on modern lines and the college students and amateur artists played an important role for the creation of the modern stage. After 1949, the M. S. University, Baroda provided a special course in dramatics and Vadodara is in the forefront in producing stageworthy plays.

Among the tribals every important phase of their life, be it a marriage or a death, a religious rite or a harvest operation, is enlivened by songs and

dances. On account of their intense emotional value, dances find a place in all their activities of life.

Public Games and Recreation

Public games provide one of the ways in which people pass their leisure time. The young people play a number of indigenous outdoor games such as *hu-tu-tu* (*kabaddi*), *kho-kho*, *langadi*, *gedi-dada*, *ata-pata*, *chor-police*, *sat-tali*, etc., which develop strength, ability and endurance. They are still played both in towns and villages but not with the same interest as in the past. Their place has been taken up by the western games, such as cricket, basket-ball, foot-ball, volley-ball, table-tennis, badminton, hockey, etc. Facilities for playing modern games are provided in schools, colleges, sports clubs and gymnasias. When the taluka and district sports are held, a large number of young boys and girls participate in the games very enthusiastically. A beginning in this direction of organising district sports was made by late Maharaja Sayajirao III after he visited the Olympic Festival held in Germany in 1936. Thus Hind Vijay Gymkhana, Vadodara used to organise a sports meet every year at Vadodara. The sportsmen from all over India came to participate in these sports competitions. Besides the gymkhana, the Gujarat Krida Mandal and the Madhyastha Krida Mandal also did remarkable work in promoting interest in sports. These institutions encouraged sports through regular coaching to the young sportsmen. Among indoor games carrom has gained popularity among the youngsters. Playing cards is favourite pastime with adults. In rural areas generally, the Indian games are favoured because of their cheapness *kho-kho*. Party of Vadodara has gained nation wide reputation for its proficiency.

The district has a number of sports clubs and recreation centres such as the Lions Club, the Rotary Club, the Junior Chamber Vadodara, the Citizens Council, etc. The social and cultural activities are also undertaken by the Rotary Club of this district with branches in some of the talukas. The Lions Club and the Junior Chamber of Vadodara are also associated with certain social and educational activities. But the majority of people have little interest, no time and money to spare after such clubs. For them occasional visits to the cinema theatre is the only form of common entertainment. There are 29 cinema theatres in the district, out of which 16 cinema theatres are located in the Vadodara city and the others are in the district. In the city among number of halls, where the dramas are staged, the following are known : Gandhi Nagar Griha, Dipak Open-air theater, Premanand Sahitya Hall, Music College-Open-air theater, etc.

Old men and women and some of the adults rest content with visiting some temples or *ashrams* either to hear *katha*, *kirtan*, *bhajan* or religious *darshan* of the deity.

For the adults, in rural areas *bhajan mandalis* and *ras mandalis* provide rest and recreation at night, when males assemble at the village *chora* or at any public place in the village and pass their time in singing devotional songs, *bhajans* and *kirtans*. The tribals revel in folk-dances, when they find themselves free from manual work.

CALENDAR

The Hindu Calendar

According to the Indian tradition significant activities, celebrations of festivals and auspicious days are associated closely with the different systems of time-reckoning or the Calendars in vogue in different parts of the country. The various systems of time-reckoning which regulate the celebration of festivals in the district even to this day are the Vikram era and the Hijri era.

The people in general in this district follow the Vikram Samvat (era) which precedes the Christian era by fifty-six years. The year begins with the month of Kartik and is divided into three seasons, namely, the winter consisting of the months of Kartik, Margashirsh, Paush and Magha, the summer extending over the months of Phalgun, Chaitra, Vaishakha and Jyeshtha and the monsoon over the months of Ashadh, Shravan, Bhadrapad and Ashvin. Each month is divided into two fortnights, the *shukla paksha*, the bright fortnight, when the moon is waxing and the *krishna paksha*, the dark fortnight when the moon is waning. Dates are reckoned by the day of the fortnight each month.

The Jain Calendar

The Jains specially follow Vir Samvatsara which commenced in 527 B. C., from the day when Mahavir, the last of the twenty-four Jain Tirthankars, attained *nirvan* for the observance of their religious practices and events.

The Muslim Calendar

The Muslims in the district follow the Vikram era for accounting and commercial purposes. For their religious and social purposes, they, however, follow the Hijri era. The Hijri era is Arabic in origin. It came into being from 15th July, 622 A. D., in the 42nd year of the life of prophet Mohammed to commemorate his migration (*hijrat*) from Mecca to Madina.

FESTIVALS

Festivals as they are celebrated in this country symbolise people's cultural, social and religious aspirations which, besides, helping them to

lead a fuller and better life, also mitigate its monotony by providing physical diversion and mental recreation. Though principally associated with religion, there are a number of occasions wherein the social aspect assumes prominence. In fact, festivals are special days, periods of time and season, which are so designed as to ensure individual joy by practising religion coupled with social joy and domestic happiness. They are primarily connected with religious days and agricultural operations.

The Hindu Festivals

The Hindus have a number of festivals all the year round. The principal festivals which are observed by almost all the castes and classes in the district include the Diwali and the New Year's Day, Makar Sankranti, Holi, Balev, Navratri and Dassera, besides Mahashivratri, Ram Navmi and Janmashtami, which are mainly observed by the followers of the respective sects. There are a number of other festivals such as Bhai-Bij, Dev Diwali, Vasant Panchami, Nag Panchami, Rushi Panchami, Shitla Satam, Ganesh Chaturthi, etc. which are also popular in the district. The Akhatrij or Akshaya Trutiya falling on Vaishakh Sud 3 and the Bhadarvi Amas occurring on the *amavasya* of Shravan have special significance for agriculturists. The Akhatrij is considered auspicious for commencing agricultural operations. The agriculturists perform certain rites before their bullocks and implements and apply *kumkum* and adorn them with flowers. On Bhadarvi Amas, which is considered to be the holiest among *amavasyas*, the farmers worship their bullocks and feed them.

To the devout Hindus, every *ekadashi* is a sacred festival to be celebrated by observing fast and performing *kirtan*. Of all the *ekadashis*, those falling on Kartik Sud 11 (Dev-Uthi or Prabodhini Ekadashi) and Ashadh Sud 11 (Dev-Podhi Ekadashi) are specially sacred. There are certain religious festivals, which have special significance for ladies. These include Aluna Vrata, during the month of Chaitra, when women take *aluna* or saltless diet, the Vat-Savitri Purnima (Jyeshtha Sud 15) when married women worship a banyan tree and keep awake the whole night for nuptial bliss and long life for their husbands, the Gauri Vrata or Jaya-Parvati Vrata observed for five days from Ashadh Sud 11 to 15, both by married women and unmarried girls in dedication to the worship of goddess Gauri or Parvati, and Divaso (falling on the last day of Ashadh), when the Hindu women observe fast and keep awake the whole night to please goddess Parvati for marital bliss. The Randhan Chhath (Shravan Vad 6) is an important day for ladies, which is devoted to cooking food for the day following sacred to the Shitla Mata. As the goddess Shitla is supposed to move about among the hearths, artificial heat by kindling the fire, in the oven of hearth is, therefore, eschewed on that day for fear of annoying the goddess. In the morning of Shitla Satam, the lady of the house worships the

goddess under a *pipal* tree (*ficus religiosa*), where-after the food cooked on the previous day is offered by the members of the household. Worship of Shitla and Nag (King Kobra) reveal the non-aryan influence on Hindu religion.

The Jain Festivals

The Jain festivals are generally associated with severe austerities, fasting and worship. The devotee is required to avoid, in addition to roots, which are prohibited on ordinary days, leafy vegetables, dry fruits, tasty food preparations, milk and curds and in some cases even water, when severe austerities and penance are enjoined.

The principal Jain festivals are the Paryushana, the Oli (Siddhachakra Puja), the Kartik Purnima and the Mahavir Jayanti.

The Muslim Festivals

The two sects of the Muslims, Sunnis and Shiahs, have different holidays except Muharram. Ramzan, Id-e-Milad and Bakri-Id festivals which are common to both. In the beginning of the year comes the month of Muharram, which is held by Shiahs in special veneration as being the month in which Imam Hussain, the son of Ali was killed.

The thirteenth of Safar is known as Tera Tezi or Talan Tezi and kept by Sunnis to commemorate the Prophet's recovery from a severe sickness. Another important day is the twelfth of the month of Rubi-ul-Awwal the Wafat or day of the Prophet's death. This day is called Id-e-Millad, as it is also the day of the birth of the Prophet. The *gyarvi* festival falls on the eleventh day of Rubi-us-Sani on which Sunnis celebrate the birth of Saiyad Abdul Kadir Jilani by illuminating their houses and eating *malidah* (powder sugar bread) at night. On the first eleven nights of Rabi-ul-Awwal in honour of Prophet's birth, *waazes* (sermons) are delivered, a large number of people attend them on the eleventh day, charitable people give a morsel of sacred food called *taburruk* to every one present. The Shab-e-Barat is characterised by the preparation of special dishes, which are distributed to the poor after the recitation of *fatiha* (opening chapter of the *Quran*) and by feasting of friends and relations. Greater than this festival is the Id-ul-Fitr commonly known as Ramzan Id which falls on the first day of Shawwal. Muslims Sunnis and Shiahs of all ages and both sexes take bath, put on new clothes, apply perfumes, go to the mosque, and thereafter, meet friends and relations and bid them good luck and god-speed on this day. The Id-e-Baqr falls on the tenth day of Zilhijja and is characterised, like Ramzan Id, by prayers in mosques. The eighteenth of Zilhijja is a great Shiah holiday known as

Id-e-Ghadir or the lake holiday. On third day, the Prophet seated by a lake proclaimed in a joyous moment that Ali was his own flesh and blood. Shiahs also observe the twenty-eighth of Zilhijja as a festival of three days in memory of Baba Shuja-ud-din a fire worshipping convert to Islam.

Pilgrim Places

In this district following places are well-known as places of pilgrimage for Hindus : Chandod - Karnali and Karvan in Dabhoi taluka ; Ambali village in Siner taluka, Nareshwar near Lilod village in Karjan taluka and Kukas village in Sinor taluka for the Pirana panth.

FAIRS

Fairs are generally associated with deities, religious rituals and agricultural seasons. The following statement gives information about the names of deities to which they are held and the number of persons participating.

STATEMENT

Fairs According to Deity, Months and Size of Congregation

(IN DESCENDING ORDER OF CONGREGATION)

[illegible]

STATEMENT III-17—concl'd.

Sl. No.	Deity	Month	Total		Below 5,000		5,000 to 9,999		10,000 to 24,999		25,000 to 49,999		50,000 and above	
			No. of fairs	Congregation	No. of fairs	Congregation	No. of fairs	Congregation	No. of fairs	Congregation	No. of fairs	Congregation	No. of fairs	Congregation
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
15	Ganesh	.. September	1	1,600	1	1,600	..	..	..	..	..	..	..	..
16	Kabir	.. December	1	1,000	1	1,000	..	..	..	..	..	..	..	..
17	Commercial	.. Every Monday	1	1,000	1	1,000	..	..	..	..	..	..	..	..
18	Miscellaneous	Total	4	7,750	3	2,750	1	5,000	..	..	..	..	..	..
		March	1	450	1	450	..	..	..	..	..	..	..	..
		October	3	7,800	2	2,300	1	5,000	..	..	..	..	..	..

Source : Census of India 1961, Gujarat, Vol. V, Part VII-B, *Fairs and Festivals, Part II*, pp. 252-253.

According to the 1961 Census the total number of fairs held in the district is 156. The congregation at these fairs varies according to the season and exigencies of agricultural operations. 37 fairs of the total in the district are held in the month of March (Phalgun-Chaitra). Among the total fairs, 28 are held in reverence to Holi Mata. Next in order, 23 fairs are dedicated to Lord Shiva, 21 fairs to Mataji, 19 fairs to Lord Krishna while 18 fairs are dedicated to the Muslim *Pirs*, rest of the fairs are dedicated to Neditirtha, Hanuman, Bhathiji, Shri Swaminarayan, Ganesh, Kabir, Serpent-god, etc.

Because of religious, social, historical and numerical importance some of the fairs among all are worthy to note. During the fairs, besides the usual religious practices of having a dip in the holy waters of the river reverence to the deity, cultural activities such as film shows, exhibitions, etc. are also organised by the Taluka Panchayats. The details of these activities are given in the following statement.

STATEMENT III-18

Fairs, their Occasion, Site, Time, Congregation and Other Particulars

Sl. No.	Name of occasion	Place where held	Date of fair	Estimated congregation	Activities	(i) Nearest Railway Station (i) Bus Service	Castes communities participating	Remarks
1	2	3	4	5	6	7	8	9
1	Chaitri Punam	.. Chandod, Dabhoi Taluka	Chaitra Sud 15	30,000	Merry-go-rounds, 50 stalls of sweets, eatables, toys, cutlery	Railway Station Bus.	Brahman, Bania Patel, Bania, Bhil, Koli Tadi, Machhi, a few non-Hindus.	People bathe in the holy river Narmada, Organised by Group Panchayat which levies pilgrim tax. Attended by people from neighbouring areas.
2	Chaitri Punam	.. Karnali, Dabhoi Taluka	Chaitra Sud 15	15,000	Merry-go-rounds, giant-wheels; stalls of sweets, <i>pan</i> <i>bidi</i> , cold drinks, religious pictures, wooden and earthen toys, cutlery.	Chandod, 3 km. Bus.	Mostly Hindus.	Worship of Kubereshwar Mahadev at the confluence of Narmada and Orsang rivers. Organised by Gram Panchayat. Police bandobast. Attended by people from neighbouring talukas. Panchayat levies pilgrim tax.
3	Mahashivratri	.. Karvan, Dabhoi Taluka	Magh Vad 14	6,000-7,000	Hawkers of eatables	Railway Station, Bus.	Brahman, Bania, Pathar, Koli, Vasava, Harijans, Muslims.	Procession of Lord Shiva from Rajreshwar Mahadev to Vaj-nath Mahadev 1½ km. away at 8 p. m. Started 104 years ago. The former is also called "Lakulesh". Pashupat sect is believed to have originated here. The unusual idol of black touchstone in human shape along with a <i>linga</i> was hidden out of fear in the time of Mahmud Begada and found by a farmer from his field near the ravines of river Rangav. The clay-boils, etc. Organised by village leaders. Attended by people from Menpura, Nana fofalia, Puniad, Kunvarpur, Sultanpura, etc., villages.
4	Nathakaka Pir fair	.. Kukas, Sinor Mahal	Bhadrapad Sud 2, 3	10,000	Merry-go-rounds, <i>bhujans</i> , gymnastics, 100 stalls of eatables, toys, coconuts, cutlery.	Sadhali, 5 km. Bus	Hindus	The death anniversary of Nathakaka, a Koli-dacoit turned disciple of Imam Shah, and became a saint. Organised by the trustees. Attended by people from surrounding talukas. A very old fair. Gram Panchayat levies pilgrim tax.
5	Kayamuddin Pir Dada fair	.. Ekalbara, Padra Taluka	Margashirsh Sud 15	5,000	<i>Bhajan</i> <i>mandis</i> , qawwalis and other programmes. 60-70 stalls of sweets, eatables, cutlery.	Padra, 11 km.	All communities	People come to <i>dagah</i> of Kayamuddin Pir to be cured of evil spirits, sickness. Attended by people from surrounding villages.

STATEMENT III-18—contd.

Sl. No.	Name of occasion	Place where held	Date of fair	Estimated congregation	Activities	(i) Nearest Railway Station	Castes communities participating	Remarks
1	2	3	4	5	6	7	8	9
6	Shikaru Pir fair	Vejalpur Vaghodia Taluka	Rajab 29, 30 Shaaban 1	3,000-3,500	Giant-wheels, merry-go-rounds, 50 stalls of toys, cutlery bangles, tea.	Antoli, 2½ km.	All communities	Dargah of Shikaru Pir Cataracts and eye diseases are believed to be cured by the <i>manant</i> of the <i>pir</i> . Organised by <i>Mujavar</i> . Attended by people from surrounding villages.
7	Chul fair	Gambhirpura, Vaghodia Taluka	Phalgun Vad 1	1,000	Giant-wheels, merry-go-rounds, <i>bhajan mandlis</i> , 10 stalls of <i>pan-bidi</i> , eatables tea, bangles, cutlery	Vaghodia, 14½ km.	"	Attended by people from neighbouring villages.
8	Chul fair	Kherva, Sankheda Taluka	Phalgun Vad 2	800-30	stalls of sweets, bangles, <i>pan-bidi</i> , cutlery, sugar cane.	Bodeli, 6½ km.	Bania, Patidar, Baria, Tadvli, Nayaka, a few non-Hindus.	Fire walking after Holi in fulfilment of vows for the longevity of children. Attended by people from surrounding villages.
9	Chuldevi fair	Alva, Tilakwada Mahal	Phalgun Vad 1	400-500	15 stalls of sweets, tea	Naswadi, 9½ km. Bus.	Bhil	Limited to the village
10	Chul fair	Chametha, Naswadi Taluka	Phalgun Vad 1	5,000-6,000	150 stalls of eatables, tea, cutlery	Kaledia, 1½ km.	All communities	Attended by people from surrounding villages.
11	"	Sengpur, Naswadi Taluka	Phalgun Vad 1	2,000-3,000	60 stalls of <i>pan-bidi</i> , tea, fruits, eatables earthenware.	Naswadi, 19 km. Bus	Adivasis, a few non-Hindus.	Fire-walking in fulfilment of vows. Organised by Gram Panchayat. Attended by people from surrounding villages. Police <i>bandobast</i> .
12	"	Ratanpur, Naswadi Taluka	Phalgun Vad 1	2,000-3,000	30 stalls of <i>pan-bidi</i> , tea, fruits, eatables earthenware.	Naswadi 2 km.	Adivasis, a few non-Hindus.	Fire-walking in fulfilment of vows Organised by Gram Panchayat. Attended by people from surrounding villages. Police <i>bandobast</i> .
13	"	Sandhiya, Naswadi Taluka	Phalgun Vad 1	2,000-2,500	30 stalls of eatables, toys, <i>pan-bidi</i> , tea, sugar cane.	Railway Station.	All communities	Next day after holi, <i>bhukas</i> walk barefooted on fire. Organised by Gram Panchayat. Attended by people from surrounding villages
14	"	Khareda, Naswadi Taluka	Phalgun Vad 1	400-500	Stalls of cutlery, <i>pan-bidi</i> , eatables.	Naswadi, 14½ km.	Rajput, Kanbi, Bhil, Koli, Baria, Harijan, a few non-Hindus.	Limited to the village.
15	"	Navlie, Chhota Udepur Taluka	Phalgun Vad 2	4,000	Adivasi folk-dance with drums. 50 stalls of sweets, <i>pan-bidi</i> , tea.	Chhota Udepur 32 km.	Mostly Adivasis. few Muslims.	Worship of fire, fire walking in fulfilment of vows for curing illnesses. Police-bandobast. Attended by people from surrounding villages.
16	"	Panvad, Chhota Udepur	Phalgun Vad 1	400-500	40-50 stalls	Chhota Udepur 6½ km. Bus. wa	Koli, Dhanka, Nayka, Rath.	Attended by people from surrounding villages

STATEMENT III-18—contd.

DISTRICT GAZETTEER : VADODARA

Sl. No.	Name of occasion	Place where held	Date of fair	Estimated congregation	Activities	(i) Nearest Railway Station		Castes communities participating	Remarks
						(i) Bus Service	(ii) Bus Service		
						7	8		9
17	Chul fair	Rumdiya, Chhota Udepur Taluka	Phalgun Vad 1	300-400	5-7 stalls	Chhota Udepur, 17½ km. Bus.			Police bandobast. Attended by people from surrounding villages.
18	"	Panibar, Jabugam Taluka	Phalgun Vad 2	2,000	50 stalls of eatables, cutlery, toys.	Chhota Udepur 14½ km.		Baria, Navaka, Rathawa, Bhil-Tadvi, Harijan. A few non-Hindus for entertainment.	Worship of fire and chul ceremony, i.e., fire walking according to vows taken after applying turmeric paste to the body. Organised by Group Panchayat which levies shop tax. Attended by people from surrounding villages.
19	"	Mativant, Jabugam Taluka	Phalgun Vad 1	1,000-2,000	Merry go round circus. 60 stalls of eatables, toys, clothes, bamboo articles	Jabugam, 19 km.		Raipur, Bhil, Tadvi, Koli, Navak, a few non-Hindus	Fire-walking in pursuance of vows taken. Organised by Gram Panchayat which levies shop tax. Attended by people from the taluka
20	"	Thambhala, Jabugam Taluka	Phalgun Vad 1	1,000	15-20 stalls of eatables, cutlery	Pavi, 22 km.		Adivasis Koli, Navak, Tadvi, a few non-Hindus	Worship of fire and chul ceremony, i.e., fire walking according to vows taken. Organised by Gram Panchayat which levies shop tax.
21	"	Bamroli, Jabugam Taluka	Phalgun Vad 6	600	15-20 stalls of sweets, cutlery	Pavi, 16 kms.			Organised by Panchayat
22	Panchia fair	Sardiya, Sankheda Taluka	Phalgun, Vad 5	1,000-1,200	Bhajan mandis, Religious preaching 50 stalls of sweets, eatables, toys, cutlery, bangles.	Gojpur Sankheda 5 km.		Patidar, Baria, Tadvi, Vasava, Bhil, a few non-Hindus.	Since idol of Jal-devi was found in an old stepwell in 1930. Panchayat levies shop tax.
23	Panchami fair, Rang Panchami	Juna Udepur, Chhota Udepur Taluka	Phalgun Vad 5	1,500-2,000	Adivasi folk-dances with drums and flutes. 30 stalls of eatables.	Chhota Udepur, 2 km.		Brahmin, Baria, Patidar, Koli, Tadvi, Rathawa, Adivasis. A few non-Hindus also.	Held at the foot of Vaghasthal hill near the river Orsang. Attended by people from surrounding villages.
24	Panchiyo fair, Rang Panchami	Ghelvant, Chhota-Udepur Taluka	"	500-700	Adivasi folk dances. 5-7 stalls of eatables.	Chhota Udepur, 6½ km. Bus		Adivasis, a few non-Hindus.	Attended by people from surrounding villages.
25	Panchiyo fair, Rang Panchami	Mandvada, Chhota-Udepur Taluka	"	500	Folk-dances. 25 stalls of eatables, cutlery, toys, vegetables, pan-bidi, cold-drinks, hand-loom cloth, bamboo articles.	Chhota Udepur, 27 km.		Koli, Bhil, Tadvi, Non-Hindus for trade and recreation.	Organised by Gram Panchayat. Police bandobast. Attended by people from surrounding villages.
26	Panchiyo fair, Rang Panchami.	Chhaviant, Chhota-Udepur Taluka	"	500	Folk-dances. 25 stalls of eatables, cutlery, toys, vegetables, pan-bidi, cold drinks, handloom cloth, bamboo articles.	Chhota Udepur, 1 km.		Koli, Bhil, Tadvi, Non-Hindus for trade and recreation.	Organised by Gram Panchayat. Police bandobast. Attended by people from surrounding villages.

Sl. No.	Name of occasion	Place where held	Date of fair	Estimated congregation	Activities	(i) Nearest Railway Station	Castes participating	Remarks
1	2	3	4	5	6	(i) Bus Service	8	9
27	Panchiyo fair	.. Jetpur, Jabugam Taluka	Phalgun Vad 5	2,000-5,000	Merry-go-round, 100 stalls of eatables, cutlery, bangles, cold-drinks, tea.	Pavi $\frac{1}{2}$ km. Bus.	Tadvi, Bhil, Rajput, Baria. A few non-Hindus	Held on account of Holi festival. Organised by Gram Panchayat which levies shop-tax. Attended by people from surrounding 10 miles area and Chhota Udepur and Sankheda talukas.
28	Panchami fair, Rang Panchami	Dungarvant, Jabugam Taluka	..	2,000	Adviya-i folk-dances-70 stalls of eatables, toys, cutlery.	Pavi 9 $\frac{1}{2}$ km.	Baria, Navaka, Rathawa, Bhil, Tadvi, Harjan. A few non-Hindus for entertainment.	Organised by Gram Panchayat. Attended by people from surrounding villages.

THE NEW TRENDS

The winds of change are blowing all round under the impact of the Five Year Plans. The pattern in dress, ornaments, social customs, food and other habits of the people, their mode of living, their religious beliefs and practices have undergone considerable changes. With the diversification of occupations and spread of education, the social barriers are gradually breaking down, the rigidity of caste-system has lost its former rigours. As a result, cases of inter-caste and inter-provincial marriages have increased. The evil of untouchability persists particularly in the rural areas and is limited among certain classes of people. The social legislation for abolition of untouchability has made limited impact on the rural population. The extension of general and technical education has opened up new avenues of employment under the Five Year Plans. Women have shed their shyness and have secured place alongwith males in the Government offices, public undertakings, private business organisations and educational and social institutions. They have shown their competence in various fields and as such, they are not confined to the hearth and home as before. Some of them have taken to active politics as legislators and Panchayat members at all levels. By and large, the people have become politically conscious and take intense interest in the elections whether they are of the Panchayats or of the State legislature or of the Parliament. With the increase in agricultural prices and due to green revolution, the purchasing power of agriculturists has increased tremendously with the result that they spend money lavishly. With the introduction of the Panchayati Raj, the farmers have acquired political power to reckon with, as vote-banks both at the State level and the district level.

After Independence, the entire landscape of agricultural economy has changed under the impact of the Five year Plans. Government has provided financial and technical assistance in the form of improved variety of seeds, fertilizers, agricultural tools and techniques. There is considerable feather-bedding of agricultural schemes.

Formerly, there prevailed Jagirdari, Inamdari, etc., systems in this district. These have been abolished by undertaking various legislative measures from 1947 onwards leading to abolition of intermediaries such as Jagirdars, Inamdars, etc. The tenancy reforms provide for security of tenure and regulation of rent. As a result of the land reforms Acts about 158,121¹ tenants have become owners of the land. The right of ownership has given the cultivators incentive for investment of capital and labour. After implementation of the land reforms, some persons, however, have remained as landless agricultural labourers. After acquisition of the occupancy rights, cultivators are now able to procure loans from banks and

1. Based on information supplied by the Collector, Vadodara.

Government, for improvement of their lands. Now the cultivators are more inclined to grow cash crops like cotton, groundnut and tobacco. Formerly the Government and *shahukars* alone provided loans to cultivators. Now the Co-operative Credit Societies and State Land Development Bank have replaced them in most cases.

Under the Five Year Plans, education has spread even to the farthest backward and tribal areas; roads have been constructed, opening the remotest areas; and industries are fast coming up, providing greater employment to the people. The improved condition has resulted in the elevation of cultivators' social status and educational standard. The increase of means of transport and communications has facilitated migration from villages to towns and cities. The entire economy of the district has undergone rapid transformation as a result of concerted efforts made by the State and the people in various walks of life.

To sum up, the society is in a process of continuous change due to the impact of the development programmes under the Five Year Plans. The transition from tradition to modernity is not complete. With the introduction of new tools and techniques of agricultural production and much feather bedding of agriculture and small scale industries by Government, the employment opportunities have increased and the people have acquired more purchasing power. This change is reflected in their level of living. They now use all modern gimmicks such as motor-cycles, radios, motor-cars, tractor, terylene clothes, better food, and well-built and well furnished houses. On the whole, the people have a better standard of living consequent upon improvement of their economic conditions. Because of growth of facilities in the means of communication, inter-State and international mobility has greatly increased in recent times.

STATEMENT

STATEMENT

Census Houses and the Uses

District / Taluka/ Mahal/ City / Town with population of 50,000 or more 1	Total/ Rural/ Urban 2	Total No. of Census Houses 3	Census Houses vacant at the time of house listing 4
Baroda District :	T	367,335	28,830
	R	262,137	20,306
	U	105,198	8,524
1 Baroda	T	119,268	9,421
	R	40,745	5,025
	U	78,523	4,396
9.72 Sq. Miles Baroda (M) 25.17 Sq. Km.	U	75,925	4,181
2 Savli	R	32,079	2,521
3 Vaghodia	R	18,113	1,256
4 Padra	T	38,979	4,066
	R	34,028	3,577
	U	4,951	489
5 Karjan	T	22,042	1,531
	R	19,859	1,371
	U	2,183	160
6 Sinor	T	13,873	1,484
	R	11,252	922
	U	2,621	562
7 Dabhoi	T	32,065	3,223
	R	22,490	1,567
	U	9,575	1,656
8 Sankhoda	T	26,571	2,448
	R	22,225	1,448
	U	4,346	1,000
9 Tilakwada	R	7,633	413
10 Nasvadi	R	11,581	1,065
11 Chhota Udepur ..	T	25,064	608
	R	22,065	347
	U	2,999	261
12 Jabugam	R	20,067	794

Source :

Based on Census of India 1961, Gujarat, Vol. V., Part IV-B, *Housing and Establishment Tables*, pp. 24-25.

III-19

to which They are Put

Occupied Census Houses used as				
Dwellings 5	Shop-cum- dwellings 6	Workshop-cum dwelling 7	Non-dwellings 8	Others 9
279,278	2,690	999	19,835	35,703
203,761	1,869	686	7,125	28,390
75,517	821	313	12,710	7,313
88,805	708	276	11,051	9,007
30,301	199	77	1,270	3,873
58,504	509	199	9,781	5,134
56,276	509	199	9,701	5,059
25,527	178	91	1,099	2,663
14,116	78	16	653	1,994
27,120	273	77	1,612	5,831
23,815	248	57	822	5,509
3,305	25	20	790	322
15,640	182	49	698	3,942
14,210	117	33	433	3,695
1,430	65	16	265	247
8,579	123	22	786	2,879
7,026	101	22	528	2,653
1,553	22	..	258	226
22,485	254	24	1,612	4,467
16,461	188	19	653	3,602
6,024	66	5	959	865
20,386	238	65	994	2,440
17,806	165	37	551	2,186
2,580	73	28	395	254
6,305	102	125	198	490
9,739	90	59	202	426
22,831	214	157	521	733
20,710	153	112	275	468
2,122	61	45	246	265
17,745	250	38	409	831

(Bk) H-112—33 (Lino)

STATEMENT

Distribution of Sample Households Living in Census Houses
Wall and Predominant

(Based on 20

Predominant

District/Taluka Mahal/City/Town with Population of 50,000 or more 1	Total/ Rural/ Urban 2	Total No. of House- holds 3	Grass, Leaves Reeds or Bamboo 4	Timber 5	Mud 6	Unburnt bricks 7	Burnt bricks 8
Baroda District	T	57,634	15,051	270	17,585	2,779	2,2119
	R	42,007	14,367	185	16,492	1,789	8,738
	U	15,627	684	85	1,093	990	12,481
1 Baroda	T	18,310	1,161	47	3,616	738	12,424
	R	6,206	754	17	3,020	111	2,206
	U	12,104	407	30	596	627	10,218
Baroda City (M)	U	11,658	384	30	559	565	9,895
2 Savli*	R	5,218	1,272	23	2,693	3	1,137
3 Vaghodia*	R	2,859	1,036	8	1,239	20	536
4 Padra	T	5,550	213	127	3,336	771	1,071
	R	4,874	207	116	3,208	544	772
	U	676	6	11	128	227	299
5 Karjan	T	3,282	245	3	1,922	31	1,068
	R	2,977	201	1	1,864	3	908
	U	305	44	2	58	28	160
6 Sinor	T	1,772	207	4	649	332	578
	R	1,454	191	4	605	285	367
	U	318	16	..	44	47	211
7 Dabhoi	T	4,682	478	10	1,720	6	2,433
	R	3,456	468	..	1,561	2	1,414
	U	1,226	10	10	159	4	1,019
8 Sankheda	T	4,256	2,005	9	880	239	1,037
	R	3,708	1,949	9	773	220	679
	U	548	56	..	107	19	358
9 Tilakwada*	R	1,333	656	..	511	32	125
10 Nasvadi*	R	1,990	1,652	7	163	10	118
11 Chhota Udepur	T	4,745	3,561	32	538	204	381
	R	4,295	3,416	..	537	166	165
	U	450	145	32	1	38	216
12 Jabugam*	R	3,637	2,565	..	318	393	311

*Entirely rural.

Source :

Census of India 1961, Gujarat, Vol. V, Part. IV-B, "Housing and Establishment
Tables, pp. 494-497.

III-20

Used Wholly or Partly as Dwelling by Predominant Material of
Material of Roof

per cent Sample)

Material of wall				Predominant Material of Roof						
C. I. sheets or other metal sheets 9	Stone 10	Cement con- crete 11	All other material 12	Grass, Leaves Reeds, Thatch, wood or Bamboo 13	Tiles, Slate, Shingle 14	Corru- gated iron, zinc or other metal sheets 15	Asb- es- tos, cem- ent sheets 16	Brick and lime 17	Conc- rete- and stone 18	All other- mat- erial 19
280	110	320	20	6,469	21,779	26,731	345	12	2,020	278
183	97	138	18	3,386	20,134	17,938	94	4	356	95
97	13	182	2	3,083	1,645	8,793	251	8	1,664	183
82	1	234	7	3,176	2,949	9,977	256	8	1,749	195
20	..	71	7	369	2,006	3,563	17	..	234	17
62	1	163	..	2,807	943	6,414	239	8	1,515	178
61	1	163	..	2,801	830	6,129	239	8	1,473	178
80	3	4	3	573	2,016	2,564	10	3	35	17
10	3	1	6	717	762	1,363	9	..	6	2
13	1	14	4	217	2,684	2,581	..	..	65	3
11	..	14	2	179	2,637	2,039	..	..	19	..
2	1	..	2	38	47	542	..	..	46	3
9	1	3	..	102	943	2,213	3	..	19	2
..	..	..	..	81	887	1,998	2	..	9	..
9	1	3	..	21	56	215	1	..	10	2
1	..	1	..	27	416	1,316	1	..	12	..
1	..	1	..	23	359	1,066	..	..	6	..
..	..	..	..	4	57	250	..	..	6	..
24	8	3	..	311	1,033	3,248	9	..	75	6
9	..	2	..	217	872	2,346	1	..	14	6
15	8	1	..	94	161	902	8	..	61	..
27	35	24	..	414	1,789	1,977	14	1	14	47
19	35	24	..	329	1,731	1,576	13	1	11	47
8	..	..	..	85	58	401	1	..	3	..
2	6	1	..	165	648	519	..	..	1	..
23	15	2	..	273	1,359	347	..	..	6	5
2	12	15	..	260	4,240	204	10	..	30	1
1	10	..	..	226	3,917	135	9	..	7	1
1	2	15	..	34	323	69	1	..	23	..
7	25	18	..	234	2,940	422	33	..	8	..

STATEMENT

Sample Households Classified by Number of Members

(Based on 20

District/Taluka/Mahal/ City/Town with Popu- lation of 50,000 or more 1	Total/ Rural/ Urban 2	Total number of house- holds 3	Total number of members 4		Total number of rooms 6
			Males	Females	
Baroda District	T	57.634	156.476	144.767	101.518
	R	42.007	114.451	107.953	67.885
	U	15.627	42.025	36.814	33.633
1 Baroda ..	T	18,310	48,238	42,731	35,721
	R	6,206	15,420	14,473	10,609
	U	12,104	32,818	28,258	25,112
Baroda City (M) ..	U	11,658	31,688	27,362	24,283
2 Savli* ..	R	5,218	13,245	12,658	8,431
3 Vaghodia* ..	R	2,859	7,743	7,287	3,847
4 Padra ..	T	5,550	14,678	13,400	11,132
	R	4,874	12,795	11,680	9,367
	U	676	1,883	1,720	1,765
5 Karjan ..	T	3,282	8,771	8,237	7,554
	R	2,977	7,976	7,549	6,979
	U	305	795	688	575
6 Sinor ..	T	1,772	4,798	4,564	3,141
	R	1,454	3,997	3,830	2,536
	U	318	801	734	605
7 Dabhoi ..	T	4,682	12,475	11,753	9,550
	R	3,456	9,191	8,668	6,114
	U	1,226	3,284	3,085	3,436
8 Saukheda ..	T	4,256	11,724	11,048	5,506
	R	3,708	10,398	9,729	4,396
	U	548	1,326	1,319	1,110
9 Tilakwada* ..	R	1,333	3,838	3,466	1,987
10 Nasvadi* ..	R	1,990	5,606	5,272	2,717
11 Chhota Udepur ..	T	4,745	14,353	14,001	6,466
	R	4,295	13,235	12,991	5,436
	U	450	1,118	1,010	1,030
12 Jabugam ..	R	3,637	11,007	10,350	5,466

*Entirely rural.

Source :

Census of India 1961, Gujarat, Vol. V, Part. IV-B, Housing and Establishment
Tables, pp. 524-527.

III-21

and by Number of Rooms Occupied

per cent Sample)

Households with no regular room			Households with one room		
Number of households 7	Number of members		Number of households 10	Number of members	
	Males 8	Females 9		Males 11	Females 12
67	172	169	31.079	78.104	72.541
57	151	144	24.805	63.741	60.593
10	21	25	6.274	14.363	11.943
7	23	17	8,094	18,039	15,767
2	8	2	3,091	6,586	6,409
5	15	15	5,003	11,453	9,358
5	15	15	4,834	11,067	9,054
3	7	6	3,140	7,573	7,233
6	14	15	2,195	5,688	5,388
10	22	22	1,755	3,983	3,638
8	21	17	1,578	3,607	3,307
2	1	5	177	376	331
3	15	12	1,096	2,475	2,354
2	11	8	952	2,153	2,078
1	4	4	144	322	276
1	2	1	963	2,485	2,358
1	2	1	813	2,124	2,061
..	..	..	150	361	297
6	8	11	2,547	6,457	6,022
6	8	11	2,136	5,486	5,148
..	..	..	411	971	874
12	32	33	3,406	9,115	8,547
10	31	32	3,155	8,557	8,005
2	1	1	251	558	542
3	11	8	844	2,299	2,078
8	25	20	1,332	3,586	3,337
1	1	3	3,443	10,154	9,941
1	1	3	3,305	9,832	9,671
..	..	..	138	322	270
7	12	21	2,264	6,250	5,878

STATEMENT

Sl. No.	District / Taluka / Mahal / City / Town with Population of 50,000 or more.	T R U	Households with two rooms			Households with three rooms		
			Number of members			Number of members		
			Number of households	Number of members		Number of households	Number of members	
				Males	Females		Males	Females
1	2		13	14	15	16	17	18
	Baroda District	T	17,166	48,402	43,936	5,130	15,762	14,763
		R	11,923	34,366	31,940	3,096	9,577	8,978
		U	3,524	14,036	11,996	2,034	6,185	5,789
1	Baroda	T	6,331	17,224	14,876	2,227	6,861	6,342
		R	2,215	6,077	5,574	670	1,973	1,809
		U	4,116	11,147	9,302	1,557	4,888	4,542
	Baroda City (M)	U	3,917	10,634	8,905	1,500	4,722	4,408
2	Savli*	R	1,456	3,921	3,634	323	943	900
3	Vaghodia*	R	469	1,462	1,336	105	306	301
4	Padra	T	2,798	7,547	6,875	600	1,760	1,633
		R	2,532	6,832	6,245	494	1,449	1,311
		U	266	715	630	106	311	322
5	Karjan	T	1,093	2,946	2,790	562	1,709	1,584
		R	989	2,649	2,529	543	1,627	1,523
		U	104	297	261	19	82	61
6	Sinor	T	489	1,326	1,268	172	506	493
		R	381	1,058	997	139	423	405
		U	108	268	271	33	83	88
7	Dabhoi	T	951	2,466	2,333	434	1,243	1,155
		R	637	1,705	1,604	274	786	716
		U	314	761	729	160	457	439
8	Sankhoda	T	601	1,831	1,730	137	435	396
		R	440	1,431	1,330	72	272	241
		U	161	400	400	65	163	155
9	Tilakwada*	R	382	1,206	1,070	71	203	200
10	Nasvadi*	R	586	1,777	1,704	48	179	177
11	Chhota Udepur	T	1,038	3,308	3,186	202	658	659
		R	864	2,860	2,783	108	457	477
		U	174	448	403	94	201	182
12	Jabugam*	R	972	3,388	3,134	249	959	927

III-21—contd.

Number of households	Households with four rooms		Households with five rooms or more		
	Number of members		Number of households	Number of members	
	Males	Females		Males	Females
19	20	21	22	23	24
2,187	7,023	6,705	2,005	7,013	6,649
1,219	3,876	3,584	907	2,740	27,14
968	3,147	3,121	1,098	4,273	3,935
850	2,881	2,761	801	3,210	2,968
142	497	416	86	279	272
708	2,384	2,345	715	2,931	2,696
692	2,332	2,301	710	2,918	2,679
167	448	446	129	353	439
53	166	162	31	107	85
203	687	621	184	679	611
154	526	453	108	360	347
49	161	168	76	319	264
261	785	731	267	841	766
237	744	681	254	792	730
24	41	50	13	49	36
92	312	289	55	167	155
76	255	235	44	135	131
6	57	54	11	32	24
369	1,085	1,048	375	1,216	1,184
254	747	717	149	459	472
115	338	331	226	757	712
55	168	189	45	143	153
17	57	73	14	50	48
38	111	116	31	93	105
16	49	46	17	70	64
12	26	25	4	13	9
31	129	106	30	103	106
13	74	49	4	11	8
18	55	57	26	92	98
78	287	281	67	111	109

PART IV—ECONOMIC ORGANISATION

CHAPTER IV

AGRICULTURE AND IRRIGATION

AGRICULTURE

Vadodara is mainly an agricultural district. According to the *Gazetteer of the Baroda State* (1923), 71.7 per cent of its population depended on Agriculture for their livelihood. According to the Census of 1951, this percentage then declined to 62.96. Of the total cultivators, 62.40 per cent were owner cultivators who cultivated their own lands, 13.84 per cent were tenant cultivators, 19.72 per cent were cultivating labourers and 4.0 per cent were absentee land-lords or agricultural rent receivers who owned land but did not cultivate. In 1961, 70.90 per cent of the working population of the district was engaged in agriculture. This percentage declined to 66 at the time of the 1971 Census. This decline in agricultural population during the last one decade is attributable to the greater urbanisation and industrialisation in the district after the formation of the Gujarat State. The statement that follows gives the number of persons working as cultivators, agricultural labourers and others engaged in allied activities between 1961 and 1971.

STATEMENT IV-1

Agricultural Population

		1961*	Percentage	1971†	Percentage
Total Agricultural Classes					
	P	420,074	100.00	419,039	100.00
	M	289,106	100.00	347,483	100.00
	F	130,968	100.00	71,556	100.00
1 Cultivators	P	253,395	60.32	210,093	50.14
	M	194,934	67.43	202,809	58.36
	F	58,461	44.64	7,284	10.18
2 Labourers ..	P	162,316	38.64	204,966	48.91
	M	90,518	31.31	140,961	40.57
	F	71,798	54.82	64,005	89.45
3 Others ..	P	4,363	1.04	3,980	0.95
	M	3,654	1.26	3,713	1.07
	F	709	0.54	267	0.37

NOTE : P=Persons, M=Males and F=Females.

Source :

* *District Census Handbook* 1961, Baroda, p. 26.

† *Administrative Atlas*, Census of India, 1971 Gujarat, Series-5, Part IX-A, p. 88.

It is a noteworthy fact that the proportion of cultivators is only slightly higher than agricultural labourers. In fact the proportion of agricultural labourers in this district is among the highest in Gujarat. This is because of the predominant Scheduled Tribes population, most of whom are engaged as labourers in agriculture and allied activities. Secondly, the number of women members who supplement the income of their families is exceptionally high in the case of agricultural labourers. About 67 per cent of the labourers are females.

As regards population engaged in agriculture, the former *Gazetteer*¹ recorded as follows :

"In the Baroda district, Patidars, Kanbis, and Shaikh Musalmans are considered to be the best cultivators. The Patidars belong to two well-known classes of Kanbis, namely Lewa and Kadwa. The superior classes of cultivators are generally well-to-do people. They are hard-working and frugal except on occasions of marriages or funerals. Kolis, Rajputs, Musalmans, and Bhils are lazy and improvident. Many of them are fed by the *Sahukars* or money-lenders all the year, and in return hand over to them all the produce of their farms. They do not even preserve seed or manure, and borrow the former as the season advances. Their bullocks, where they have any, are but rarely in good condition. The result naturally is that the out-turn of their fields is trifling and their condition is miserable in comparison with that of good cultivators."

These classes still continue to remain the main agricultural classes in the district.

LAND UTILISATION

The proper and maximum utilisation of the available land resources can play a crucial role in maximising food production. It, therefore, forms a major item in planning our economy which is predominantly agricultural. The following statement gives detailed particulars of land resources available decennially between 1949-50 and 1969-70.

STATEMENT IV-2

Land Utilisation

Sl. No.	Classification of Area	(AREA IN '00 HECTARES)					
		1949-50*	Per-centage	1959-60*	Per-centage	1969-70†	Per-centage
1	2	3	4	5	6	7	8
1	Total reporting area for land utilisation purposes	9,214	100.00	7,755	100.00	7,779	100.00
2	Forests	342	3.71	563	7.26	685	8.81
3	Land put to non-agricultural uses	..	..	1	0.01	391	5.03
4	Barren and unculturable land	936	10.16	770	9.93	336	4.32

1. DRSAL G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, (1923), p. 272.

STATEMENT IV-2—contd.

Sl. No.	Classification of Area	(AREA IN '00 HECTARES)					
		1949-50*	Per-centage	1959-60*	Per-centage	1969-70†	Per-centage
1	2	3	4	5	6	7	8
5	Permanent Pastures and other grazing lands	..	..	698	9.00	696	8.95
6	Land under miscellaneous tree crops and groves not included in net area sown	256	2.78	42	0.54	22	0.28
7	Culturable waste	245	2.66	214	2.76	149	1.91
8	Fallow lands other than current fallows	..	..	40	0.52	30	0.38
9	Current fallows	562	6.10	75	0.97	62	0.80
10	Net area sown	6,873	74.59	5,352	69.01	5,408	69.52
11	Total cropped area	6,906	74.95	5,559	71.68	5,570	71.60
12	Area sown more than once	33	0.36	207	2.67	162	2.08

Source :

* *Basic Agricultural Statistics*, Directorate of Agriculture, Gujarat State, Ahmadabad, (1968), pp. 20-23.

† Directorate of Agriculture, Gujarat State, Ahmadabad.

Though a strict comparison between the previous censuses is not possible in view of (i) the changes in classification of land utilisation and (ii) territorial changes in the district, some broad observations can be made. In terms of percentages, forests have increased from 3.71 per cent of the total area in 1949-50 to 8.81 per cent in 1969-70 due to afforestation schemes introduced after Independence. Barren and unculturable land has significantly come down from 10.16 to 4.32 per cent during this period. Culturable waste land has decreased from 2.66 to 1.91 per cent during this period. The fallow land has also similarly decreased. On the other hand, area under double-cropping has appreciably increased due to the availability of irrigation. This is revealed from the increase registered under the head "area sown more than once" from 0.36 per cent to 2.08 per cent during the over-all period of twenty years.

IRRIGATION

The Vadodara district has a total geographical area of 777,900 hectares out of which 564,900 hectares (72.62 per cent) constitute the cultivable area (1969-70). The irrigation potential created through various sources of irrigation by 1969, was 90,500 hectares according to the Season and Crop Report (1969-70). This formed 16 per cent of the total cultivable area. A comparison of this figure with the corresponding ratio of 13 per

cent for the Gujarat State reveals that the district is comparatively well-off in irrigational facilities.

Irrigation assumes greater importance because of the inadequacy of rainfall which is often irregular and unequally distributed in this district. The district on an average gets 916 mm. of rainfall. The main sources of irrigation are wells, canals and tanks. Of these, wells still constitute the most important source. As regards canals the scope is limited in spite of the fact that the district has the advantage of having two major rivers— the Narmada and the Mahi on its borders, besides smaller rivers like the Viswamitri, the Orsang, the Heran, the Dhadhar, etc. The waters of the river Narmada have not yet been harnessed due to inter-State differences over their respective shares in distribution of the river water and the height of the dam. Padra, Karjan, Sinor, Tilakwada, Dabhoi, Vaghodia and Vadodara talukas of the district will be benefited from the irrigation scheme on the river Narmada as sanctioned by the Planning Commission at present. As regards the other rivers no major irrigation projects are possible as they are not perennial rivers and the river banks are steep.

The former State of Vadodara had constructed during the reign of Sayajirao-III several irrigation tanks with small distributing channels such as (1) Vadhvana, (2) Karachia, (3) Raval, (4) Haripura, (5) Dhanora, (6) Muval, (7) Manorpura, etc. Unfortunately, however, very few of these works were successful owing to deficient rainfall or insufficient capacity. The Vadodara State had also given liberal grants of Tagavi for construction of wells. Between 1880 and 1900 several drainage channels were constructed to prevent water logging. Further field drainage work was done in the first quarter of the present century in the Karjan and Sinor talukas. The completed drains were carefully maintained to prevent silting.

Irrigation Projects

For the reasons stated earlier, the district is devoid of a major irrigation project. There is one medium irrigation project, viz., Heran river project, details about which are given below :

The Heran River Project—The Heran River Project comprises a rubble masonry weir across the river Heran, a tributary of the Orsang river. The project is situated near village Rajvasana of Jabugam taluka creating an irrigation potential of 2,100 hectares. The work of the project was started in 1953-54 and was completed in 1961-62 at an estimated cost of Rs. 17.32 lakhs. The maximum height of the weir is 5 metres above foundation and its length is 182 metres. No water storage is envisaged as

1. *Handbook of Basic Statistics, Gujarat State 1965 and 1966*, Bureau of Economics and Statistics, Ahmadabad, p. 52.

this is a weir scheme depending on the rainfall and run of the river. Irrigation provided by this project is reflected in the following figures for some selective years since commencement of the project :

Year	Irrigation provided in Hectares
1	2
1957-58	177
1960-61	349
1964-65	1,611
1968-69	2,885
1972-73	2,551

Source : Superintending Engineer, Vadodara.

Minor Irrigation Schemes

Minor irrigation projects have an important role to play in the development of agriculture, as they extend facilities to areas where major or medium irrigation schemes are not feasible. Moreover, they are speedily constructed and easily maintained.

At present, there are 14 minor irrigation schemes in the district. The Statement IV-22 at the end of the chapter gives details about minor irrigation tanks in the district.

There are twelve tube-wells in the Savli taluka which provide irrigation to about 728 hectares. In Vadodara taluka, the tube-wells located at Khanpur, Angadh, Dumad, Siswa, Fazalpur and Raika provide irrigation to 647 hectares.

Though the district abounds in lakes and tanks, only a few village tanks are large enough to be useful for the irrigation of rice land in their immediate vicinity.

The chief source of irrigation at present is wells from which water is raised by means of water-bags. More recently oil-engines or electric motors and pumps have been introduced, and are becoming increasingly popular. In the past, two types of water bags were in use, *ramia kos*, and *sundhia kos*. The *ramia kos* consisted of a large leather bag with capacity of containing 16 to 20 gallons of water. Two men assisted in the work, of whom one, sitting on the rope which pulled up the bag, urged the

cattle down the slop, while the other, when the bag had been raised to the mouth of the well, emptied it into a trough or reservoir. This type has now gone out of vogue. The other type which is still in use is *sundhia kos* which is worked single handed.

Of the other means of drawing up water from wells which were popular in the past, the *supdi* and *charaidu* deserve mention. The *supdi* was an oblong vessel with a rope on each side fixed to hooks, and requiring two men to work it. The *charaidu* was a vessel with a length greater than its breadth. One of its end was purposely made wider than the other, and the whole was fixed in a wooden frame with a kind of screw at its centre. The wide end was dipped in the water and was then elevated, with the result that the water could flow from the narrow end into the irrigation channel prepared for it. These two contrivances were used only on tanks for extremely short lifts of a few feet only and were, therefore, of no use for drawing well water.

SOURCES OF WATER SUPPLY

As stated earlier, the area under irrigation in this district forms only 16 per cent of the total cultivable area (1969-70). Of the various sources of irrigation, wells have remained the most important source since early times. The following are the figures of area irrigated by different sources of water supply in the district during 1959-60 and 1969-70.

STATEMENT IV-3

Area Irrigated by Sources

(AREA IN '00 HECTARES)				
Sl. No. 1	Source 2	1959-60 3	1969-70 4	
1	Government Canals	..	..	
2	Tanks	..	..	
3	Wells	..	..	
4	Other Sources	..	..	
	Total	..	..	
		99	905	

Source :

* Basic Agricultural Statistics, Directorate of Agriculture, Gujarat State, Ahmadabad, (1968), p. 38.

† Directorate of Agriculture, Gujarat State, Ahmadabad.

It will appear from the above statement that the well irrigation continues to be the most important source of irrigation. It accounted for 88.95 per cent of the total irrigated area in 1969-70. The Government canals provided irrigation to 3.54 per cent and tanks to 6.41 per cent of the area under irrigation. Increasing use of oil and electric power is being made by cultivators in the district for lifting and pumping water from the well for irrigation purposes. These devices are proving more economical and easy to handle in the long run, though the initial capital expenditure involved in the purchase of oil-engine, electric motor and pump is quite substantial.

Irrigation facilities available talukawise during 1969-70 are given in the following two statements.

STATEMENT IV-4

Sources of Water Supply (1969-70)

(IN NUMBER)

Sl. No. 1	Taluka 2		Govern- ment canals 3	Wells used for Irrigation purpose only			Tanks used for irriga- tion purpose 8	Oil- engines and elec- tric motors 9	
				TUBE- wells 4	Govern- ment	Private			
					Masonry 5	Masonry 6			Non- Masonry 7
	District Total	..	4	37	61	10,010	1,833	16	8,925
1	Vadodara	..	..	23	..	1,935	20	1	1,564
2	Chhota Udepur	..	..	..	..	1,240	725	..	329
3	Dabhoi	..	..	..	..	655	..	1	747
4	Jabugam	..	..	..	..	842	985	2	546
5	Karjan	..	..	1	41	1,260	..	..	1,259
6	Naswadi	..	..	..	..	413	..	..	467
7	Padra	..	..	4	..	1,228	..	..	1,299
8	Sinor	..	..	4	..	451	..	..	449
9	Sankheda	..	2	..	20	693	103	..	890
10	Savli	..	..	5	..	670	..	9	760
11	Tilakwada	..	..	..	..	115	..	..	115
12	Vaghodia	..	2	..	..	508	..	3	500

Source :

Directorate of Agriculture, Gujarat State, Ahmadabad.

STATEMENT IV-5

Gross Area Irrigated by Sources

(IN HECTARES)

Sl. No. 1	Taluka 2	Government canals 3	Tanks 4	Tube- wells 5	Other wells 6	Other sources 7	Total 8
	District Total	3,247	5,826	1,672	78,773	961	90,479
1	Vadodara	..	535	1,060	16,720	..	18,315
2	Chhota Udepur	..	..	..	610	..	610
3	Dabhoi	..	3,369	..	5,599	..	8,968
4	Jabugam	..	..	..	3,320	442	3,762
5	Karjan	..	..	70	20,007	..	20,077
6	Naswadi	..	..	..	824	72	896
7	Padra	..	..	40	7,773	..	7,813
8	Sinor	..	..	240	11,442	..	11,682
9	Sankheda	2,353	..	..	3,634	108	6,095
10	Savli	..	1,255	262	6,304	..	7,821
11	Tilakwada	..	..	..	136	25	161
12	Vaghodia	894	667	..	2,404	314	4,279

Source :

Directorate of Agriculture, Gujarat State, Ahmadabad.

The Statement IV-4 indicates that out of 37 tube-wells, Vadodara has the highest number (23), followed by Savli (5). Padra and Sinor have four each and Karjan has only one. The number of Government canals is only four of which two are in Sankheda and two are in Vaghodia talukas. Of the 61 Government masonry wells, Karjan has 41 and Sankheda has 20. In the group of private masonry wells, Vadodara taluka has the highest number of wells (1935), followed by Karjan (1,260), Chhota Udepur (1,240) and Padra (1,228). Tilakwada has the lowest number of wells. In the case of non-masonry wells, only four talukas have got this facility. The distribution is as follows : Jabugam (985), Chhota Udepur (725), Sankheda (103) and Vadodara (20). The district has only 16 tanks of which nine are situated in Savli, three in Tilakwada, two in Jabugam and one each in Vadodara and Dabhoi. As far as oil-engines and electric motors are concerned, out of the total of 8,925, Vadodara claims the highest number (1,564) followed by Padra (1,299) and Karjan (1,259). Tilakwada again stands at the bottom in the list.

The gross area irrigated by different sources was 90,479 hectares during 1969-70. Karjan has the maximum area of 20,077 hectares under irrigation followed by Vadodara (18,315 hectares) and Sinor (11,682 hectares). Tilakwada has the least irrigated area (161 hectares) in the district. Thus the need for providing irrigational facilities in Tilakwada is apparent.

Area Irrigated

The non-food or cash crops which had only a negligible irrigated area under them before a decade have gradually begun to cover larger areas. In 1969-70 of the total irrigated area of 90,500 hectares, 61,500 hectares or 67.96 per cent was occupied by the non-food crops and the remainder, i. e., only 32.04 per cent by the food crops.

There has been a considerable diversion in the case of cultivation of irrigated non-food crops. Cotton occupies the largest area followed by tobacco and fodder.

The following statement gives comparative figures of irrigated areas of food-crops and non-food crops in 1959-60 and 1969-70.

STATEMENT IV-6

Area Under Irrigated Crops

(AREA IN '00 HECTARES)

Crops	1959-60*	1969-70†
<i>Total Food crops</i> ..	74	290
Rice ..	21	93
Wheat ..	36	87
<i>Rajri</i> ..	2	32
Maize ..	..	1
<i>Jowar (Rabi)</i> ..	2	17
<i>Total Cereals</i> ..	61	230
Tur ..	..	1
<i>Total Pulses</i> ..	..	1
<i>Total Food grains</i> ..	61	231
Sugarcane ..	..	3
Chillies ..	..	7

STATEMENT IV-6—contd.

(AREA IN '00 HECTARES)

Crops	195960*	196970†
Banana	..	17
Other Fruits	..	6
Total Fruits	..	23
Total Vegetables	..	26
Other food crops	13	..
Total non-food crops	25	615
Cotton	19	501
Tobacco	..	71
Groundnut	..	2
Fodder crops	..	41
Other non-food crops	6	..
Total area under irrigated crops	99	905

Source :

* Basic Agricultural Statistics, Directorate of Agriculture, Gujarat State, Ahmadabad, (1968), pp. 46-49.

† Directorate of Agriculture, Gujarat State, Ahmadabad.

SOILS

The district has various types of soils, i. e., deep black cotton soils, *besar*, *goradu*, alluvial, sandy loam, undulating and hilly soils. The types of soils in different talukas and the main crops grown are as under :

Sl. No.	Name of Taluka	Types of Soils	Crops grown
1	2	3	4
1	Vadodara	.. <i>Goradu</i> soils in the northern part; saline soils in the eastern part; and deep black soils in the southern part.	<i>Bajri</i> , Tobacco, Paddy, Cotton, <i>Jowar</i> , Wheat, Vegetables, Potato, Banana, Mango.
2	Padra ..	.. <i>Goradu</i> soils in the north-eastern part; <i>Bhatha</i> soils with salinity in the north-western part; and deep black soils in the southern part.	As above.

Sl. No.	Name of Taluka	Types of Soils	Crops grown
1	2	3	4
3	Vaghodia	.. Black soils with salinity in the western part adjoining Vadodara taluka; Kyari lands in the central lands part; sandy loam soils in the eastern part and black soils in the remaining part.	Cotton, <i>Jowar</i> , Paddy, Groundnut, Pulses, Guwar, Castor, <i>Bajri</i> , Wheat.
4	Savli ..	.. The south-western part has <i>goradu</i> soils; the rest of the area has black soils.	As above.
5	Karjan ..	.. Deep black cotton soils except in the Narmada river bank areas where <i>goradu</i> sandy loam and alluvial soils exist.	Cotton, <i>Jowar</i> , Wheat, Castor, <i>Tur</i> , Paddy.
6	Sinor ..	.. As above	As above.
7	Dabhoi	.. Mostly black soils except Kyari soils in the command area of Vadhawana tank and undulating soils in the southern part on the bank of Orsang river.	Cotton, <i>Jowar</i> , Wheat, Castor, <i>Tur</i> , Paddy.
8	Tilakwada	.. Mostly undulating soils <i>Goradu</i> in nature. The level fields have black soils.	Cotton, <i>Bajri</i> , Pulses, <i>Jowar</i> , Paddy, Wheat.
9	Naswadi	.. Black soils with morumic subsoil.	Cotton, <i>Jowar</i> , Paddy, Pulses, Groundnut, Wheat, Maize.
10	Sankheda	.. Northern part has black soils with <i>moram</i> below; western part and the area around Bahadarpur has <i>goradu</i> soils and the rest of the area has black soils.	Cotton, <i>Bajri</i> , Paddy, Pulses, Castor, Groundnut, Vegetables, <i>Jowar</i> , Banana, Wheat.
11	Pavi-Jetpur (Jabugam)	.. Northern part has undulating soils with morumic subsoil, the southern part has <i>goradu</i> and sandy loam soils.	<i>Bajri</i> , Maize, <i>Jowar</i> , Groundnut, Cotton, Pulse, Paddy, Banana, Wheat, Vegetable, Castor.
12	Chhota Udepur	.. Mostly undulating soils with subsoil either of <i>morum</i> or <i>kankar</i> .	Cotton, Maize, <i>Jowar</i> , Groundnut, Pulses, Castor, Paddy, Wheat and Fruit cultivation.

Source :

District Development Officer, Vadodara.

Black soils are met with in the southern and south-eastern parts and the *gorat* in the northern parts of the district. A typical soil analysis of Vadodara, Karjan and Dabhoi talukas is given in the following statement.

STATEMENT IV-7

Soil Analysis

	Vadodara	Karjan	Dabhoi
Coarse sand	0.74	0.22	..
Fine sand	76.57	49.93	41.41
Silt	8.25	27.80	18.29
Clay	11.25	9.25	35.60
Moisture	2.20	4.45	5.02
Calcium Carbonate	0.26	..	..
Nitrogen	0.053	0.062	0.033
PH	7.8	7.8	8.0
Acid insoluble matter	89.46	65.95	81.89
Total K ₂ O	0.120	0.110	..
Total P ₂ O ₅	0.139	0.107	..
Available K ₂ O	0.0130	0.0060	..
Available P ₂ O ₅	0.0170	0.0085	..
C/N Ratio	9.8	9.8	..

Source :

Source: Forty Second Session, Indian Science Congress, Baroda, (1955), pp. 126-127.

Soil Conservation

Among soil conservation schemes, contour bunding is the most popular. The soil conservation programme was started in the district in the year 1951. The area covered initially comprised Chhota Udepur, Jabugam and Sankheda. Thereafter, three sub-divisions were opened in the district which executed different soil improvement schemes.

(i) The Vadodara sub-division started in 1964-65, undertook the work of contour-bunding in Padra, Vadodara, Sinor, Vaghodia and Sankheda talukas between 1964 and 1970. In 1970, this division started the work of *kotar* reclamation in Padra, Vadodara, Savli, Dabhoi and Sinor talukas. By 1972, a total of 7,458 hectares of land was brought under contour bunding and *kotar* reclamation at a cost of Rs. 19.97 lakhs.

(ii) Another sub-division with its headquarters at Chhota Udepur, was started in 1958. The jurisdiction of this sub-division is Naswadi, Tilakwada, Sankheda and Pavi-Jetpur (Jabugam) talukas of the district. It executes several schemes of soil conservation. About 26,000 hectares of land was covered under this sub-division at a cost of about Rs. 31 lakhs.

(iii) The Halol sub-division also implements the schemes of contour-bunding and *nala* bunding in the Vaghodia taluka and in the northern part of Savli taluka. This sub-division started functioning in 1964-65. A total area of 1,220 hectares was bunded in this sub-division between 1970-71 and 1973-74 at a cost of Rs. 3.23 lakhs.

CROPPING PATTERN

The main crops grown in the district are cotton, paddy, groundnut, *bajri*, tobacco, maize, Rabi *jowar*, wheat and *tur*. Crops grown on the black soils are cotton and Rabi *jowar* though paddy is also grown in fields under irrigation, rotated by wheat in the Rabi season. In the black soil areas, the cotton crop is grown on nearly 70 to 80 per cent of the total area. In rocky or hilly soils the crops taken are maize, groundnut, cotton, paddy, *jowar*, wheat and pulses. In *goradu* soils the crops cultivated are *bajri*, *jowar*, wheat, tobacco, groundnut, long staple cotton, vegetables and banana. Paddy is both a drilled and transplanted crop in the district. The drilled paddy is taken as a single crop as well as an inter-crop in cotton in certain areas only. The transplanted paddy is confined mainly to parts of Dabhoi, Sankheda, Vaghodia and Savli talukas under the canal or tank irrigation. Karjan taluka of the district forms a part of the well-known Kanham, the cotton growing tract in the State.

The cropping pattern, which existed before the turn of the century, has been described in the former *Gazetteer*¹ as under.

“Of the 585,361 acres arable land, 5,622 acres were under garden cultivation, 419,940 acres were under dry crop and the rest under rice and cotton crop cultivation.”

About four decades later, the *Gazetteer of the Baroda State*² (1923) described the cropping pattern in the following statement.

STATEMENT IV-8

Percentage of Jirayat and Kyari Land in Talukas

Sl. No.	Name of the taluka	Jirayat	Kyari
1	2	3	4
1	Vadodara	90	10
2	Karjan	100	..
3	Padra	100	..
4	Savli	90	10
5	Dabhoi	94	6
6	Vaghodia	71	29
7	Sinor	100	..
8	Sankheda	99	1
9	Tilakwada	100	..

1. ELLIOT F. A. H., *Gazetteer of the Bombay Presidency*, Vol. VII, Baroda, (1883), p. 84.
2. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, Bombay, (1923), p. 257.

The statement reveals that in the absence of irrigation facilities, most of the land was under dry cultivation. *Kyari* land was found only in Vaghodia, Vadodara, Savli and Dabhoi talukas.

Agricultural development gained considerable momentum in the district after the accession of the late Maharaja Sayajirao III of Baroda. It was since then that an essentially subsistence agriculture turned into a commercial one and the crops instead of being raised for domestic needs of the family began to meet the requirements of the far-off market. More and more commercial crops, the most important of which was cotton, began to be cultivated.

The following statement gives figures of area under principal crops for the years 1952-53, 1962-63 and 1972-73.

STATEMENT IV-9

Area under Principal Crops

(AREA IN '00 HECTARES)

Sl. No.	Name of Crop	1952-53*	1962-63*	1972-73*
1	2	3	4	5
1	Paddy ..	717	719	448
2	Bajri ..	313	131	190
3	Maize ..	124	93	105
4	Kodra ..	..	..	178
5	Wheat ..	65	57	127
6	Jowar ..	782	558	375
7	Other Cereals ..	489	155	90
	<i>Total Cereals</i> ..	2,490	1,713	1,514
8	Gram ..	16	48	8
9	Tur ..	144	174	135
10	Other Pulses ..	102	109	101
	<i>Total Pulses</i> ..	352	331	244
	<i>Total Food grains</i> ..	2,842	2,044	1,758
11	Sugarcane ..	..	2	2
12	Chillies ..	3	6	6
13	Potatoes ..	1	2	1
14	Groundnut ..	240	359	174
15	Sesamum ..	43	11	19
16	Castor ..	3	6	4
	<i>Total Oilseeds</i> ..	286	376	197
17	Cotton ..	1,524	2,327	2,624
18	Tobacco ..	86	201	216

Note : Data of 1972-73 are based on final forecast.

Source :

* *Statistics of Area, Production and Yield Per Acre of Principal Crops in Gujarat State for the Period 1949-50 to 1963-64*, Director of Agriculture, Ahmadabad, (1965), pp. 28-168.

† Director of Agriculture, Gujarat State, Ahmadabad.

The statement shows that over these years the acreage under food grains has decreased considerably. In respect of individual crops, paddy, *bajri* and *jowar* have registered steep decline during the two decades. Wheat has, however, increased from 6,500 hectares in 1952-53 to 12,700 hectares in 1972-73. The area under non-food crops has registered a steady rise during the last two decades. Among non-food crops, cotton is the most important cash crop in terms of area and total value of sale proceeds. The district is the largest producer of cotton and the second largest producer of *tur* in the State. In respect of cotton the practice of wider spacing as well as dibbling is known and adopted by the farmers. The general standard of raising cotton is better than that of food crops. The area under tobacco has also increased and cultivators now pay more attention to tobacco as it is an important cash crop.

OUT-TURN OF CROPS

The out-turn of principal crops in the district during the period 1952-53 to 1972-73 is given in the following statement.

STATEMENT IV.10

Out-turn of Principal Crops

(IN '00 TONNES)

Sl. No.	Name of Crop	1952-53*	1962-63*	1972-73†
1	2	3	4	5
1	Paddy ..	139	297	129
2	Bajri ..	119	83	131
3	Maize ..	51	121	105
4	Wheat ..	25	34	192
5	Jowar ..	360	391	199
6	Other Cereals ..	261	152	137
	<i>Total Cereals</i> ..	955	1,078	893
7	Gram ..	5	23	5
8	Tur ..	53	112	52
9	Other Pulses ..	53	51	25
	<i>Total Pulses</i> ..	111	186	82
	<i>Total Food grains</i> ..	1,066	1,264	975
10	Sugarcane ..	3	12	8
11	Chillies ..	1	3	4

18,400 tonnes during the period. It is mostly grown as a Rabi crop in rotation with cotton on black soils. The popular varieties of *jowar* include, *dodmogaria*, *vani ratadiu*, *sundiya* and *maragadiu*. *Jowar* No. 8 is grown as an improved variety. The land is ploughed and harrowed four times during breaks in rains. The seed is sown with a drill, usually in September or October. Inter-tillage consists of one or two hoeings and some ploughing in between the rows when the growth is about 3 feet high. It ripens in December-January, when heads are cut off and threshing is done as usual. The crop is then harvested close to the root, left there for drying for 4 to 5 days, and finally tied into bundles. There are other fodder varieties, which ripen within three months and can be grown in any season with irrigation, and are consequently of great value in famine years. These are *sundhia*, *kamalparu* and *chhastio*. They are allied to one another but are acclimatized in different tracts. The stalks, which are thinner than those of grain varieties, are used as green fodder after flowering. It is the best known fodder crop especially for farm stock, and cultivators usually preserve it for use during the monsoon.

Bajri—*Bajri*, (*Pennisetum typhoideum*), which occupies the third position among the cereals and forms along with *jowar*, the staple food of the masses, is grown in *goradu* and sandy soils. It was cultivated in 19,000 hectares during 1972-73, when its outturn was about 13,000 tonnes.

The land is manured at the rate of 15 to 20 cart-loads per hectare. Preparatory tillage consists of two ploughings after the rains in June-July. *Bajri* is generally grown mixed with pulses such as *mag* or *math* and cotton, except when it is not to be followed by any Rabi crop like wheat.

The improved variety of hybrid No. 3 is generally grown in the district. Inter-tillage consists of three harrowings and five hoeings. Each hectare requires 15 to 20 cart-loads of farm yard manure and 75 to 500 kg. of fertilizer. It ripens in August-September when the whole crop is harvested close to the root and tied into bundles 4 to 5 days later when dry. Then the ears are cut off with a sickle, and threshing is done under the feet of bullocks. Pulses begin to flourish after the harvesting of *bajri*, and ripen in November-December.

Kodra—*Kodra* (*Paspalum scrobilatum*), is grown entirely as a Kharif crop mostly as a mixed crop in *besar* and *goradu* soils. It covered 17,800 hectares with an outturn of 8,000 tonnes in 1972-73. Its seeds are sown after the first rainfall and hoeing with *dantal* follows about six days later. Then one weeding and two hoeings with *karabdi* are done at short intervals. The crop generally ripens in October.

Wheat—Wheat, (*Triticum sativum*), is grown as a Rabi crop. There are several varieties, viz., NP 824, *kalyansona*, *sonalika*, Junagadh-1 and

Junagadh-1-7. The fields are ploughed and levelled twice or thrice before the seeds are sown in November. Beds are made 4 or 5 days later. The first watering is given 15 to 20 days after the sowing followed by regular watering every week. The crop ripens in January-February, when it is harvested and threshed. Irrigated wheat occupied 12,500 hectares while the dry crop covered only 200 hectares during 1972-73. The out-turn of wheat was 19,200 tonnes during the same period.

Maize—Maize (*Zea Mays*) was grown on 10,500 hectares of *bhatha* and medium black soils of the district in 1972-73. Its outturn was 10,500 tonnes during the same period. The land is ploughed once or twice before the sowing operations start in June or July. Farm yard manure at the rate 15 to 20 cart-loads per hectare is applied. The crop ripens in October-November. The improved varieties Sameri, Ganga-3 and Ranjit are extensively sown in the district. If there are irrigation facilities, the crop can also be grown in summer as well. The stalks are too thick to make good fodder for cattle. Maize gave an yield of 1,122 kg. per hectare which was the highest among all districts of Gujarat in the year 1972-73.

Pulses—*Tur* and gram are important pulse crops grown in the district. During 1972-73, pulses occupied 24,400 hectares. *Tur* occupied 13,500 hectares in 1972-73, the highest among all districts of Gujarat. It yielded an outturn of 5,200 tonnes. It is sown between June and August and harvested in December-January. Gram (*Cicer arietinum*), is taken as a second crop after paddy in *kyari* lands and in lowlying wet areas as a main Rabi crop. It covered 800 hectares of land yielding an outturn of 500 tonnes during 1972-73. It is sown in November and harvested in March.

Groundnut—Groundnut is an important oilseed crop of the district. It covered 17,400 hectares and yielded 5,800 tonnes during 1972-73. In the past, inspite of special efforts, it could not establish itself amongst the common crops of the region except in patches of a few hundred acres in the district. The high cost of the seed, the heavy harvesting charges and the damage done by jackals, pigs, crows and white ants proved too strong a combination for the farmer to combat in the past. These have now been brought under control. As a result, the crop has gradually attained greater importance, of late.

Groundnut is grown as a Kharif crop on any description of soil. There are two improved varieties, viz., Panjab-1 and S. B. II (Junagadh-1). Both are sown in June-July after usual cultivation, with farm yard manure of 15 to 20 cart loads per hectare. Inter-culturing consists of three harrowings and four hoeings. It requires two to three waterings. The crop ripens in August-September.

Castor—Amongst the oilseed crops castor (*Ricinus communis*) occupies the second important place in this district. It occupied 400 hectares in 1972-73 and yielded an outturn of 400 tonnes.

The crop adapts itself to any variety of circumstances of soils seasons and climate. Sowing is done between June and August and harvesting takes place in November-December. Varieties S-20 and Gujarat hybrid-3 are grown in the district. Inter-tillage consists of two ploughings, two harrowings and four hoeings.

Tal—Tal (*Sesamum indicum*) is grown entirely as a Kharif crop, on soils varying from medium black to sandy. It is grown either as a main crop or as a mixed crop, with cotton or kodra. It occupied 1,900 hectares giving an outturn of 200 tonnes during 1972-73. The crop is a precarious one, very susceptible to weather conditions and to the ravages of a kind of pod-borer. When it yields, it gives abundant outturn and when it fails, it does so thoroughly. In this respect it is quite a contrast to castor which exhibits a wide range of adaptability.

Tobacco—Tobacco (*Nicotinna tabacum*) was grown on 21,600 hectares during 1972-73 in *goradu* and *bhatha* soils of the district. There are six varieties, viz., K-49, K-20, Anand-3, Anand-21, Anand-23, and Anand-119. The fields are ploughed and levelled 3 to 4 times. The land is heavily manured, at the rate of 15 to 20 cart-loads per hectare. The seed is broadcast in June in seed-beds to rear seedlings. It is watered every third day if there is no rain. Great care is needed for its cultivation as the seedlings are very delicate. Transplanting is done in August, when the seedlings are 4 inches high. The seedlings are transplanted in squares about 25 inches apart, when there is light rain, in the absence of which hand-watering is performed. Hoeing and weeding is done 4 to 5 times, and wherever irrigation facilities exist, one to two waterings are given. The buds begin to appear two months after planting. Then comes the work of suckering which is regularly and carefully done every week or so till there are red spots on the leaves, when they are stripped off the stalk by means of the sickle and left spread to dry. The leaves are then collected and made into bundles each of 40 to 50 leaves.

Cotton—Cotton, (*Gossypium herbaceum*) is grown extensively in this district. It covered 262,400 hectares during 1972-73. Though grown on any description of soil, it succeeds best in black soils. Varieties of *rozi* and Bharuch were grown in the past which were of the poorest quality and yield. Under the crop research and high yielding programme, improved varieties, hybrid-4, Digvijay, Co2, MC-45, etc., are now grown in the district. For conserving soil moisture and securing good germination of seed and optimum growth of plants, proper preparation of land is as necessary as the selection of a suitable soil. Decomposed farm yard manure is applied at the rate of 15 to 20 cart-loads per hectare. Preparatory tillage in black

soils consists of one or two harrowings in summer, and in lighter soils two or three ploughings are given. The sowing operations are carried out between June and July. One weeding and two hoeings are done at short intervals. Cotton picking continues from February to April. In order to get the desired yields the quality of seed is the most important. The number of irrigations and doze of fertilizers required depend upon the type of soil, rainfall and its distribution and the condition of the crop. However, 65 kg. of diammonium phosphate with 50 kg. of potash per acre should be applied. Two to four irrigations are usually given.

As many as 85 per cent of the cotton area depend on the vagaries of monsoon. More over the farmer's lack of knowledge of the technical known how in respect of fertilisation and plant protection constitutes the important factor affecting cotton production. However, its production is estimated at 246,700 bales (180 kg. lint in each bale) during 1972-73. Thus the district occupies the second place (Surendranagar being the first) in cotton production among all districts of Gujarat.

ROTATION OF CROPS

At present, the following rotation is practised in the district.

Sl. No.	First Year		Second Year
1	2	3	
1	Cotton	.. ..	Cotton
2	Cotton	.. ..	Jowar
3	Cotton	.. ..	Kharif bajri, Rabi wheat
4	Cotton	.. ..	Kharif groundnut, Rabi wheat
5	Paddy	.. ..	Kharif paddy, Rabi wheat
6	Paddy	.. ..	Paddy, Rabi wheat or gram or Val.
7	Banana	.. ..	Rabi wheat
8	Kharif bajri, Rabi wheat	.. ..	Suran or ginger or vegetables
9	Tobacco in monsoon	.. ..	Tobacco in monsoon
10	Bajri in summer	.. ..	Bajri in summer
11	Kharif bajri, Rabi potato,	.. ..	Cotton in Kharif and bajri in summer

Source :

District Agriculture Officer, Vadodara.

SEASON AND CROP

Crops grown in the district fall into three main categories, viz., the Kharif, the Rabi and the summer. The Kharif or the rain-fed crops are sown in June-July and harvested usually in October-November. The Rabi or irrigated crops are usually sown in September-October and harvested in

February-March. The summer crops are sown in February-March and harvested in May-June.

The main Kharif crops in the district are paddy, *tur*, maize, *bajri*, cotton, groundnut, tobacco, banana, vegetables and *jowar*. The Rabi crops are wheat, gram and potatoes. The summer crops include *bajri*, *jowar* for fodder, sugarcane, etc. The following are the figures of area under food crops and non-food crops in different agricultural seasons during 1969-70.

(AREA IN '00 HECTARES)

S. No.	Crop	Seasons			
		Kharif	Rabi	Summer	Total
1	2	3	4	5	6
1	Food	1,523	656	27	2,206
2	Non-food	3,298	28	38	3,364
	Total	4,821	684	65	5,570

Source :

Directorate of Agriculture, Gujarat State, Ahmedabad.

The Kharif crops being the principal crops always occupy a much larger area as compared to Rabi and summer. However, the area under these three types of crops varies from year to year depending upon the season and irrigation facilities.

CROP-CALENDAR

The months of sowing and harvesting of different crops are given below.

S. No.	Name of Crop	Months of sowing	Months of harvesting
1	2	3	4
1	Rice	June-July	October-November
2	Wheat	October-November	March-April
3	<i>Jowar</i>	September-October	January-February
4	<i>Tur</i>	June-July	February-March
5	Gram	October-November	February-March
6	Groundnut	June-July	October-November
7	Sesamum	June-July	October-November
8	Cotton	June-July	February-March
9	Tobacco	August-September	February-March

Source :

District Agriculture Officer, Vadodara,

ACTIVITIES OF THE DEPARTMENT

The former State of Vadodara had initiated various steps for the improvement of agricultural practices. Early efforts were confined to the teaching of agriculture in special and ordinary schools. For example, in 1886-87, a special Agriculture School with Gujarati medium was started in Vadodara and in 1890, a class for training students for the Bombay University was opened in a local college. Courses in Agriculture were also introduced in the Kala Bhavan and in the Male Training College, Vadodara. In 1916, a special school for training boys of the farmers was opened at Jagudan, and was later shifted to Vadodara.

The State also adopted several other measures for effecting improvements by direct methods. Some students were sent to England for training in agriculture. Agricultural implements were imported from abroad, and the cultivator was encouraged to imitate the methods prevalent in West without sufficient preliminary study of local conditions and requirements. Attempts were made to introduce iron ploughs, reapers, cane crushers, winnowers, steam ploughs, and other costly and heavy machinery. Other experiments were made regarding tobacco-curing, cheese-making, and the breeding of Australian sheep. All these measures were spasmodic and did not produce any tangible results.

Reorganization of the Department

In 1899 came the great famine and the necessity for taking better steps for improvement of agriculture was increasingly felt. Between 1900 and 1904, various measures were taken by the Government of India to reorganise their Department of Agriculture. Several experts in Agricultural Chemistry, Economic Botany, Mycology and Entomology were engaged. An Imperial Research Institute was founded at Pusa and the Provincial Departments of Agriculture were similarly reconstructed. To co-ordinate their activities and to carry out a well-considered policy for the whole of India, the office of Inspector-General of Agriculture was created in the Government of India. In harmony with the agricultural policy of the Government of India, the State saw the necessity of reorganising its Department of Agriculture. In 1909 Agriculture which had till then been considered only a temporary section of the Revenue Department, was given the status of a department and a full time Director was appointed.

The department was placed directly under the Dewan to receive his personal attention. Later, arrangements were made for periodical visits of the officers of the various Departments of Agriculture in British India to the Model Farm at Vadodara. From 1908 to 1912, some work of secondary importance was done. The department had no expert or district staff, and was not expected to carry out any special research work.

During this period experimental work at the Vadodara and Jagudan farms was continued. This more or less followed the practice of similar farms in British India. Various experiments were made. Encouragement was given to the cultivator by supplying improved implements at reduced price. Unfortunately the results were not as encouraging as desired.

PROGRESS OF SCIENTIFIC AGRICULTURE

After Independence, various measures have been undertaken for scientific improvements in various agricultural programmes. The following paragraphs deal with such measures.

Agricultural Tools and Implements

The agricultural tools and implements used in the district are still mostly traditional. Simple in construction, they are made of *babul* (*Acacia arabica*) wood by the ordinary village carpenter at small cost and can be easily repaired. The tools in general use include, *datardu*, sickle, for harvesting and cutting grass, etc., *khurapi*, for weeding, *kodali*, spade, and *pavdo*, shevel, for digging, *kuhadi*, axe, for cutting wood, *dantali*, rake (generally six-toothed) for threshing *khori*, rake (allied to *dantali* but with teeth closer and broader), for spreading manure and *jinsli*, (three or four toothed), used in lining for planting tobacco and chillies in squares.

The important implements in use are as follows. The *hal*, or plough, is used in ploughing the land. It scratches the surface and forms an arrow-shaped furrow varying from 5 to 7 inches in depth. The *karab*, or ramp, harrow, with a horizontal blade 30" to 40" in length is used in summer in black soils, and in the monsoon in all soils for preparatory tillage. The *dantal*, harrow, (six wooden coulters), is mostly used for stirring the soil after ploughing.

The seed-drill used in sowing is named as *tarfen* (three coulters) in the district. There are holes in the coulters on which are placed the bamboo tubes which support the seed-bowl (*orano*).

The *orano* is a bamboo tube tied with a leather strap to the plough, for sowing seeds. The *rampadi* or *karabdi* (bullock-boe) is similar to *karab*, (harrow) but differs from it in size. It is made of various sizes to suit different crops such as cereals, tobacco and chillies. It stirs the surface and destroys the weeds. Two and sometimes three of them are yoked at a time. The *samar* is used in covering seeds as well as in levelling the soil after ploughing. The cart (*gadu*) used in the district is a little longer with a yoke in front, movable sides, and two wheels, usually, but not always tyred. Another type, called a *damania*, is about half the length of the *gadu*, and chiefly used for passengers. As regards the improved implements in use, mention may be made of the Hyderabad and Kishan iron plough, the Vadodara hoe, the Anand hoe, the Cotton Plant Puller, the winnowing fan, the seed dressing drums, the power sprayers and dusters, tractors with

implements and trailers, etc. The use of tractors has greatly increased of late. The livestock censuses of 1951, 1961 and 1972 recorded agricultural implements in use as follows.

STATEMENT IV-12

Agricultural Implements

	1951*	1961*	1972**
Ploughs	1,45,718	1,38,901	1,19,815
(i) Wooden	1,44,676	1,38,146	1,17,283
(ii) Iron	1,042	755	2,532
Carts	45,653	43,104	49,777
Sugarcane crushers	199	93	111
(i) Power	55	46	52
(ii) Bullocks	144	47	59
Oil-Engines	1,133	1,232	5,153
Electric pumps	240	340	2,662
Tractors	58	198	437
Ghanis	366	370	85
Persian wheels or <i>rahats</i>	N.A.	55	58

N.A.= Not available.

Source :

*District Census Handbook 1961, Baroda, p. 199.

**Bureau of Economics and Statistics, Gujarat State, Ahmadabad.

It will appear from the statement that the use of improved implements like iron ploughs, oil-engines, electric pumps and tractors has increased tremendously between 1961 and 1972. The use of traditional wooden plough has declined steadily and progressively during the two decades. Despite the use of motor trucks and other mechanised vehicles, the wooden carts still hold the fort. Its number was 43,104 in 1961 and 49,777 in 1972. The number of sugarcane crushers by power and bullocks fluctuated between 1951 and 1972. However, mechanisation of agriculture is clearly manifested in the number of oil-engines which have increased from 1,133 in 1951 to 1,232 in 1961 and ultimately to 5,153 in 1972. Electric pumps also increased rapidly from 240 in 1951 to 2,662 in 1972. There were only 58 tractors in 1951. In 1961, the number increased to 198 which further rose to 437 in 1972.

The traditional oil-ghanis have almost begun to disappear. It can, therefore, be concluded that mechanisation of implements has come to stay in this district.

(Bk) H-112—37 (Lino)

SEED SUPPLY

The cultivators of this district are usually receptive in introducing scientific methods of agricultural improvements. The district is known for its quality cotton of the Digvijay variety used in cotton mills. The Adivasi farmers have also adapted themselves to agricultural innovations. It is due to this progressive nature of farmers that they use sufficient quantities of high yielding improved seeds of paddy, wheat, jowar and tobacco and the recently evolved hybrid seeds in cotton, bajri, maize and castor. The following table shows the area under improved seeds during the last few years :

Year 1						Area under improved seeds (in Hectares) 2
1963-64	..	..	..	..	..	18,973
1964-65	..	..	..	..	..	37,442
1965-66	..	..	..	..	..	58,757
1966-67	..	..	..	..	..	83,007
1967-68	..	..	..	..	..	102,125
1968-69	..	..	..	..	..	121,738
1969-70	..	..	..	..	..	180,822

Source :

District Agricultural Officer, Vadodara,

Improved seeds are multiplied on seed multiplication farms and distributed to 'A' class registered seed-growers. The area under hybrid seeds and improved seeds during 1972-73 was as under :

Sl. No. 1						Hectares 2
1	Digvijay cotton	..	..	..	..	1,60,000
2	Groundnut Samarala	..	..	..	..	9,500
3	" S. B. II.	..	..	..	..	450
4	Paddy divert varieties	..	..	..	..	5,000
5	Paddy improved varieties	..	..	..	..	35,787
6	Wheat Mexican varieties	..	..	..	..	9,500
7	Sameri maize	..	..	..	..	3,200
8	Hybrid maize	..	..	..	..	2,900
9	Hybrid bajri	..	..	..	..	18,500
10	Hybrid cotton	..	..	..	..	4,400

Source :

District Development Officer, Vadodara.

Seed Multiplication Farms

There are eight seed multiplication farms in the district, one each at Karjan, Khanpur, Vaghodia, Naswadi, Dabhoi, Bahadarpur, Jabugam and Puniyavant. The total area under these farms is 296 acres. The farms produce seeds of paddy, jowar, maize, wheat, castor, groundnut, cotton, soyabean, mag and vegetables.

Crop Competition

The district has always remained in the fore-front in crop competitions. In the All India Udyan Pandit Banana Competition of 1970-71, a farmer of Chikodra, (Sankheda taluka) was awarded the first prize.

The following state level competition prizes have been also won by this district :

Sl. No. 1	Name of the Competition 2	Year 3	Prize 4
1	Banana	 1969-70	Second Prize
2	Grape	 1971-72	First ..
3	Guava	 1972-73	Second ..
4	Potato	 1969-70	Second ..
5	"	 1970-71	First ..
6	"	 1971-72	Third ..
7	"	 1972-73	First ..
8	Paddy	 1969-70	Third ..
9	"	 1970-71	First ..
10	"	 1971-72	Third ..
11	"	 1972-73	First ..

Source :

District Development Officer, Vadodara.

MANURES AND FERTILIZERS

Manures

In the past, manures were prepared in one of six different ways. They were made of cattle-dung mixed with urine and allowed to accumulate in a

pit during four months of the autumn. A month before the beginning of the rainy season the manure was mixed with the soil below. The field was then ploughed and clod-crushed. The second manure in importance was that of sheep and goats. Flocks of sheep or goats were made to halt in the field for a night or two, and during this interval their droppings were carefully collected and spread equally over the whole surface of the soil, which was then ploughed and clod-crushed. The third kind of manure was of the ashes of fuel and the fourth one of decayed leaves gathered from hedges and trees. They were mixed with black muddy earth. The fifth kind of manure was tank mud and river-bed mud. The sixth kind of manure was that of castor-oil refuse, which was most commonly used in the sandy land. Of late, attempts were made to prepare and use bone-dust manure in the district. Night-soil manure was also prepared at Vadodara and other Municipal towns. Bone and slaughter-house manure was allowed to be entirely wasted. The heavy duty which had been imposed in the past on the export of bones, with the object of preserving this valuable manure for the local soil, had not produced any appreciable results. The practise of green manuring with some leguminous crop was not generally practised, except in the case of rice when a green manure of *san* was sometimes taken.

However, at present green manuring is produced very extensively in the district. The following figures show the acreage under green manuring during the last five years.

Green Manuring

Sl. No.	Years	Achievement in hectares				
1	2	3				
1	1969-70	..	..	..	..	4,533
2	1970-71	..	..	..	..	9,010
3	1971-72	..	..	..	..	11,668
4	1972-73	..	..	..	..	11,101
5	1973-74	..	..	..	..	11,786

Source : District Agriculture Officer, Vadodara.

Compost manuring is equally popular in the district. As many as 15 village or Nagar Panchayats, and Municipalities are engaged in production of rural and town composts. The following statement gives the production data of rural and town compost during the last five years.

STATEMENT IV-13

Compost Production

(FIGURES IN TONNES)

Sl. No.	Year	Rural compost		Town compost
		New Pits	Old Pits	
1	2	3	4	5
1	1969-70	..	..	1,648
2	1970-71	..	..	1,462
3	1971-72	..	..	10,271
4	1972-73	..	..	9,835
5	1973-74	..	..	6,367

Source : District Agriculture Officer, Vadodara.

Fertilizers

The district stands second in the use of chemical fertilizers in the State. Though the potentiality for its use is more, the shortage of supply acts as a hinderance in achieving the target. The consumption of fertilizers between 1970 and 1973 was as follows :

STATEMENT IV-14

Fertilizers

(FIGURES IN TONNES)

Sl. No.	Name of Fertilizers	1970-71	1971-72	1972-73
1	2	3	4	5
1	Urea	12,512	15,838	20,226
2	Ammonium Sulphate	12,402	9,067	12,121
3	Diammonium Phosphate	4,969	1,472	2,964
4	Super Phosphate	1,205	762	1,195
5	Muriate of Potash	491	348	1,404
6	Calcium Ammonium Nitrate	3,580	2,538	1,129
7	Ammonium Sulphate	600	755	767
8	Manure Mixture	6,369	3,075	10,428
Total		42,128	33,855	50,334

Source : District Development Officer, Vadodara.

The above statement reveals that the consumption of chemical fertilizers declined in 1971-72 but increased substantially in 1972-73. The use of urea has steadily increased while the use of other fertilizers is more or less static.

Gobar Gas

At a time when chemical fertilizers are costly and in short supply the gobar gas plant serves a dual purpose for fuel and manure. It is estimated that the cattle dung or gobar used through a gas plant produces 43 per cent more manure and the manure is richer in nitrogen content. The heat efficiency of the cattle-dung increases by 20 per cent when it is used through a gas plant instead of being burnt in the dry cake form. The Khadi and Village Industries Board, Vadodara introduced such gobar gas plants in the district in the year 1961. At present, there are 394 such plants in the district. The Board proposes to instal about 150 gas plants every year depending on the availability of raw materials.

THE AGRICULTURAL PESTS AND DISEASES

Large scale irrigation, more intensive cultivation by way of application of heavier doses of fertilizers, high yielding and hybrid seeds, etc., have provided more favourable conditions for the appearance of pests and diseases in increased frequency and in a virulent form.

The main agricultural pests and diseases attacking the crops in this district are listed below.

Name of Crop 1	Name of Pest 2	Name of Disease 3
Cotton	.. Aphid, Jassids, Thrips, Mites, Heliothis, Spotted boll worms, Pink boll-worms.	Black arm, Wilt, Root rot
Paddy	.. Swarming caterpillars, Leaf, hoppers, Blue Beetle, Stem-borer.	Blast, Wilt, Smut
Bajri	.. Blister beetle, White ant, Hairy caterpillars.	Powdery mildew, Rust, Smut Ergot
Wheat	.. Stem-borer, White fly, White ant, Wingless grasshoppers.	Rust, Smut, Blight.
Jowar	.. Stem-borer, Army-Worms, Wingless grasshoppers.	Smut.

Name of Crop	Name of Pest	Name of Disease
Maize	.. Stem-borer, Army-Worms Hairy caterpillars.	
Groundnut	.. Aphids, White Grub	Tikka.
Tobacco	.. Leaf eating caterpillars, Tobacco stem-borer.	Damping of seedling.
Castor	.. Jassids Semi looper	..
Tur ..	.. Pod borer	Wilt.

Source : District Development Officer, Vadodara.

THE CROP INSURANCE SCHEME

The need for protecting agricultural crops against floods, drought, blights and pests is now realised by the cultivators. To minimise the risk of these calamities the Crop Insurance Scheme is in operation from 1972-73 in the district. This is the only scheme of its type in the country. It is a voluntary scheme in respect of hybrid-4 cotton, operated by the Life Insurance Corporation in co-operation with the Gujarat State Fertilizer Corporation. (G. S. F. C.)

The 4-P Plan (the Package of Practices with Plant Protection) is a step which will benefit farmers both in terms of productivity and profitability. The objective of the Plan is to offer a package of inputs to farmers and to see that the farmers achieve higher production per acre. Under the Long Staple Varieties Improvement Scheme of Gujarat State, hybrid-4 cotton was released for commercial cultivation in 1966-67. The average yield of hybrid-4 variety is 1,200 kg. to 1,500 kg. per acre which is considered twice that of 170-Co2 (Deviraj) and Gujarat-67. The farmers are, therefore, convinced of its better economic returns. As a result, hybrid-4 cotton was selected for a pilot project under 4-P Plan in 1971-72.

The Life Insurance Corporation insures inputs like seed, fertilizers, manures, pesticides, irrigation water, labour, etc. An average yield of cotton hybrid-4 is 1,500 kg. per acre. The farmer would get a gross income of Rs. 3,750 per acre at the rate of Rs. 50 per 20 kg. The cost of cultivation depends upon the price of inputs which comes to about Rs. 1,750 per acre on an average for which Life Insurance Corporation will insure the cost of the inputs under the Crop Insurance Scheme. The farmers will be required to take out Life Insurance Corporation insurance amounting to Rs. 1,750 per acre for which the amount payable will be two per cent or Rs. 35 per acre. Out of the two per cent of the sum insured payable by the grower, one per

cent premium is payable to Life Insurance Corporation and the remaining one per cent is payable to G. S. F. C. for its crop assessment services. The insurance cover will facilitate the grant of 'clean' loans to cotton growers by banks to cover the higher cost of inputs for hybrid-4 cotton cultivation.

Under the Crop Insurance Scheme, an area of 390 hectares and 374 hectares was covered during 1972-73 and 1973-74 respectively. The village wise achievement during 1973-74 was as under :

STATEMENT IV-15

Crop Insurance

Sl. No. 1	Name of Village 2	No. of Farmers 3	Area covered in hectares 4
1	Dethan	54	110
2	Khandha	17	83
3	Handod	18	84
4	Kanbha	32	97
	Total	121	374

The Package of Practices with Plant Protection has brought monetary gains to cultivators. It is a novel example of different organisations, *i. e.*, G. S. F. C., commercial banks and the Life Insurance Corporation, working together in rural areas for the welfare of farmers. It has provided technical know-how, input credit, crop insurance, etc., to achieve higher crop production. As a result, impressive and outstanding achievement is noticed in the adoption of improved farm practices.

AGRICULTURAL RESEARCH

Agricultural research is a recent phenomenon which has received adequate importance only after the introduction of the Five Year Plans in India. The agricultural research programme introduced in this district can be classified under two broad heads : (1) Agricultural Research and (2) Agricultural Education.

As regards agricultural research, there are four main research centres in the district : (a) The Agricultural Research Station at Dabhoi established in 1937, which conducts agronomical trials on *jowar*, cotton, paddy etc., (b) The Pulse Research Centre at Vadodara which was started in 1966-67, as a regional research station at the Modern Farm of Vadodara to evolve

and improve pulse crops in the district, (c) The Grass Research Centre at Vadodara established in 1964-65 which works for increasing cultivation of good quality grass, (d) The Tobacco Research Station at Jabugam established in 1968 which arranges demonstrations to guide farmers in agronomical practice in the selected plots of tobacco growing areas of Vadodara, Savli and Padra talukas.

As regards agricultural education, there is an Agricultural School at Vadodara known as Sheth D. M. Agricultural Institute. This was started in 1936. It conducts a training course of two years duration during which the students are given training to use modern scientific techniques on the farm. A monthly stipend varying from Rs. 30 to Rs. 50 is given to students depending upon the annual income of their parents. There is another institution which provides agricultural education. It is known as the Gram Sevak Training Centre, Vadodara. It was started in the year 1955-56. As its name suggests, it gives training to the Gram Sevaks in improved agricultural techniques.

The district also has a coconut demonstration centre at village Chokari, and a coconut nursery at Vadodara both of which were established in the year 1966.

ANIMAL HUSBANDRY

Animal Husbandry is closely connected with agriculture and plays a vital part in its development. Livestock forms the main source of supply of draught power for cultivation and rural transport. It provides protective feeds such as milk, meat, eggs and other products like wool, hides, skins, and organic matter. The cow dung also provides substantial field manure.

In spite of the progress made in the production of synthetic fertilizers, droppings from cattle will continue to be the most important source of manure for the soil. Cowdung is universally recognised as being better than synthetic products for the retention of humus in soil and for maintaining its fertility. Its practical advantages over these products consist in the fact that it can be applied readily by farmers without the necessity of soil analysis and knowledge of the soil content. The *gobar* gas prepared from cowdung can be used for fuel and lighting.

According to the Livestock Census of 1972, the total livestock population of the district was 6.99 lakhs as against 151 lakhs in the State.

Cattle Development

There is one subsidised cattle breeding farm under the Gosamvardhan and Gopalan Trust in Vaghodia taluka, with its branch at Makarpura in

Vadodara taluka. Good Kankreji cows are maintained at this farm and the male progenies of cows are reared for breeding purposes. During 1972-73, a subsidy of Rs. 15,000 was granted to this farm. Seven Kankreji bulls were purchased and kept in seven villages of Naswadi taluka. Two Kankreji premium bulls are kept at the Branch Veterinary Dispensary, Varnama in Vadodara taluka and one at the Veterinary Hospital, Chhotu-Udepur.

Intensive Cattle Development Project, Vadodara-Bharuch Block

The Intensive Cattle Development Programme was implemented in Vadodara district in the year 1970-71. It is the most important production oriented scheme in Animal Husbandry sector. The programme envisages complete breeding control and animal health cover duly supported by feeds and fodder development and rural dairy extension activities in a planned and co-ordinated manner.

By the end of the year 1973-74, there were 38 Livestock Inspector Centres in Vadodara district. Of these, 25 centres are run by the Kheda District Co-operative Milk Producers' Union Ltd., Anand. To increase the area under fodder cultivation, subsidy for supply of seed and planting material is given to producers at the rate of 30 per cent of the cost of seed etc., limited to Rs. 10 per centre; 50 farmers get such benefit. Subsidy at Rs. 50 per demonstration plot is given for 4 such plots per centre. To encourage breeding of high yielding animals, cattle shows, calf rallies and milk competitions are being organised in all centres regularly and prizes of Rs. 200 per centre for cattle shows and calf rallies and further Rs. 200 per centre for milk competitions are given every year. The progeny born of good performance animals is selected for subsidised rearing upto the age of maturity.

Controlled breeding programme has been undertaken in I. C. D. P. area through artificial insemination and natural services by providing good quality cow/buffalow bulls. Cross breeding programme has also been taken up in I. C. D. P. area with Jersey semen. Through co-operative set up the village level societies are guided for efficient operation of the society. Dairy extension staff also advise on hygienic milk collections, more milk procurement and better management of cattle.

Dairying

Dairying is an important allied occupation in rural areas, as it gives decent income to the primary producers. With technological developments and increase in urbanisation, dairying has assumed a position of paramount importance in the agricultural economy of the district.

The Vadodara Dairy, Vadodara—The Vadodara Dairy is an important co-operative venture in the district. Its origin dates back to 1957 when the District Co-operative Milk Producers' Union was registered. The dairy plant started operating in the year 1965-66. There were more than 40,000 individual members and 450 member societies during 1972-73. The dairy produces pasteurized milk, curd, *ghee* and other products and sells them at wholesale and retail prices. The project is extended over an area of 24 acres on the outskirts of Vadodara city. The building and machinery were installed at a total cost of Rs. 93 lakhs. During 1972-73, its sale exceeded Rs. 2.63 crores. The dairy received assistance from UNICEF and FAO in form of dairy machinery worth Rs. 13.47 lakhs with a condition to distribute free milk to school children as laid down in the plan of operations. This commitment has been fulfilled by the dairy. The plant has a capacity of pasteurising 50,000 litres of milk and more than 2 lakh bottles of milk are packed everyday by automatic process. The monthly sale of milk exceeds Rs. 20 lakhs while that of *ghee* exceeds Rs. 3 lakhs. The dairy products are sold locally.

Poultry Development

According to the Livestock Census of 1972, the total poultry population of the district was 1.93 lakhs against 27.37 lakhs in the State. Poultry provides protein-rich food to the population and very rich organic manure for increasing agricultural production.

There is one district poultry farm at Vadodara under the control of the Department of Animal Husbandry and one poultry demonstration-cum-extension centre at Dabhoi under the control of District Panchayat. Day old chicks purchased from Government Poultry Breeding Farms are reared for demonstration regarding rearing, feeding and other management practices, etc., and then supplied to the participants under various schemes. Training facilities are also provided to such participants.

Poultry units of 50 to 100 birds each are established in several villages of Vadodara and Padra talukas.

Besides, there are many private poultry farms in the districts most of which are in and around Vadodara city. Poultry equipments, viz., brooders are supplied to them on loan without charging any fees.

Fodder Development

In the past fodder for cattle consisted of green grass obtained from the boundaries of the fields coupled with the weedings and green pulses grown in the fields after monsoon. The stalks of *bajri*

and *jowar* together with fodder of pulse crop were used in dry season. The poorer class of cultivators was always short of fodder in summer. Good cultivators were in the habit of growing *sundhia* fodder in summer where there was water for its irrigation.

Farmers have realised the importance of green fodder as cattle feed and hence they are growing lucerne, maize, millets, etc., throughout the district, wherever irrigation facilities are adequate. Subsidy for purchase of lucerne seeds, napier grass roots, etc., is given to individual farmers.

The stocking of fodder for using it during emergency has now become an established practice.

Veterinary Hospitals and Dispensaries

In 1972-73, there were 12 veterinary dispensaries, one branch veterinary dispensary and 29 first-aid veterinary centres in the district. Their list, talukawise is given below :

STATEMENT IV-16

Veterinary Services

Sl. No.	Name of Taluka	Number of				
		Vety. Disp.	Branch Vety. Disp.	F. A. V. C.		
1	2	3	4	5		
1	Vadodara	..	..	1	1	4
2	Dabhoi	..	..	1	..	2
3	Sankheda	..	..	1	..	3
4	Sinor	..	..	1	..	1
5	Savli	..	..	1	..	2
6	Padra	..	..	1	..	2
7	Vaghodia	..	..	2	..	2
8	Chhota Udepur	..	..	1	..	4
9	Jabugam	..	..	1	..	3
10	Karjan	..	..	1	..	2
11	Naswadi	..	..	1	..	4
Total		..	..	12	1	29

Source : District Animal Husbandry Officer, Vadodara.

These institutions render veterinary aid to ailing animals that are brought to the dispensaries and supply medicines for those ailing animals which can not be brought to the dispensaries. They castrate scrub bulls at the above institutions. These institutions also carryout preventive measures against various contagious diseases.

There is likelihood of outbreaks of various contagious diseases amongst livestock and birds. The diseases are chiefly : 1. Haemorrhagic septicaemia 2. Black quarter, 3. Anthrax, 4. Rinderpest, 5. Foot and Mouth disease, 6. Ranikhet 7. Sheep pox, 8. Enterotoxaemia, 9. Bovine surra.

The percentage of death of livestock and birds due to these diseases is very high and as such the animals are vaccinated before the disease is reported. The vaccination programme is carried out regularly every year free of charge.

During 1972-73, there were only 29 outbreaks of contagious diseases which were recorded and there were 647 attacks and 229 deaths as narrated below :

STATEMENT IV-17

Animal Diseases Recorded, 1972-73

Name of the disease	Cattle		Buffaloes		Poultry		Total	
	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths
1	2	3	4	5	6	7	8	9
Haemorrhagic Septicaemia	14	14	65	58	..	..	79	72
Foot and Mouth disease	307	..	69	..	..	..	376	..
Bovine Surra	8	2	9	5	..	..	17	7
Ranikhet	..	..	..	..	175	150	175	150
Total	329	16	143	63	175	150	647	229

Source : District Animal Husbandry Officer, Vadodara.

Veterinary Education and Research

There is one Livestock Inspector Training Centre at Vadodara for imparting training to fresh candidates as well as to Livestock Inspectors on duty under State level scheme which is now under the purview of the Gujarat Agricultural University.

Livestock Population

According to Livestock Censuses of 1951, 1961 and 1972 the livestock population of the Vadodara district was under :

STATEMENT IV-18

Livestock (1951-72)

Category	1	1951*	1961*	1972*
		2	3	4
Total Livestock	..	631,167	629,606	699,022
A—Cattle	..	315,021	323,690	339,594
1. Male over 3 years	..	195,133	205,079	212,046
2. Female over 3 years (in milk)	..	53,814 (27,504)	59,303 (23,783)	62,036 (24,911)
3. Young stock	..	66,077	61,308	60,512
B—Buffaloes	..	184,585	178,145	194,316
1. Male over 3 years	..	1,411	1,483	888
2. Female over 3 years (in milk)	..	115,242 (78,053)	102,614 (58,074)	119,001 (64,064)
3. Young stock	..	67,932	74,048	74,427
C—Sheep	..	4,953	4,482	3,113
D—Goats	..	117,231	111,852	152,903
E—Horses and Ponies	..	4,952	5,373	3,413
F—Mules	..	37	21	35
G—Donkeys	..	4,334	3,721	4,919
H—Camels	..	37	240	85
I—Pigs	..	14	82	1,543

Source :

*District Census Handbook 1961, Baroda, p. 22.

†Directorate of Bureau of Economics and Statistics, Gujarat State, Ahmadabad.

The above data indicate that the livestock population in the district has remained almost static during the intercensal period of the last two decades, except for the pigs which have registered a sharp increase.

Domestic Animals

The local varieties of cattle in the Vadodara district are of small size. The bullocks though quick in speed are unfit for heavy draught. The *kankreji* breed is well-known throughout Gujarat, and is much esteemed for

the size of the bullocks. These large and strong animals are suited for ploughing and other heavy work. About domestic animals, the former *Gazetteer* (1883)¹ noted as follows :

“The domestic animals found in the district are oxen, cows, buffaloes, horses, sheep, goats, asses and camels. The camels are for the most part not indigenous but are imported from Saurashtra and Rajasthan.

The bullocks are used in ploughing, and for driving carts. A well-to-do-cultivator generally keeps two cows and two she-buffaloes. Large herds of these animals are kept by professional herdsmen or *Rabaris*, who sell their produce in the shape of clarified butter or *ghee*.”

Kankrej Breed—The main characteristic of this breed is its light grey body-colour and the dark grey colour on the face. Both their fore and hind legs have black colour in front up to the knee. Their head is broad and the mouth comparatively short. Ears are long and extending upto nostrils. The hump is well developed. The tail is comparatively short. The gait is well-known and is popularly known as “Savai Chal”. The *Kankrej* cattle are very highly prized as fast, powerful draught cattle.

Buffaloes—The district has *Surati* buffaloes. The home of this breed is the Charotar tract of Gujarat. The buffaloes are considered to be economical producers of milk and butter. The average milk yield is about 3,650 lbs., in one lactation with 7.5 per cent butter fat.

The *Surati* breed is a well shaped animal of medium size. The general appearance is bright with prominent eyes, straight back, sickleshaped flat horns of medium length, long and broad head rounded between the horns. The animals are mild in general and have a placid disposition. The manure of cattle is also dried in cakes and used as fuel. It is also made use of to cleanse the floors and walls of the *Kutchas* houses.

Asses—Asses are largely employed by potters, *Vanzaras* and *Ravalias* as beasts of burdens.

Goats and Sheep—Goats and sheep are kept by the *Rabaris*, who prepare out of wool, a coarse cloth called *dhabla*. Most of the *Rabaris* are emigrants from Saurashtra and Kachchh. They return when monsoon sets in. The Vadodara district is not a sheep breeding tract. *Rabaris* and *Bharwads* keep small flocks of sheep, mostly of *Patanwadia* breed. In urban areas of the district, generally Muslims, *Rabaris* and *Bharwads* maintain goats for milk.

1. ELLIOT F. A. H., *Gazetteer of the Bombay Presidency*, Vol. VII, Baroda, (1883), p. 43.

Horses—Horses are generally used for driving carts but seldom for riding and never for ploughing. Horse breeding is not popular in the district. They are purchased from Banaskantha, Kachchh and districts of Surashtra. With the merger of the states, good horses have become rare and the motor car and bus have replaced the horse.

Poultry—People in urban areas have now started taking interest in poultry breeding. There are about 12 private poultry farms in Vadodara city itself. Mostly the white leghorn birds are maintained.

FISHERIES

The efforts to develop the fishing industry on a scientific and rational line had been initiated by the Baroda State with the establishment of the Fisheries Department in 1937. At that time fishing was done on subsistence level and was confined to the river Mahi. With the advent of Independence the development of inland fisheries, both by culture and capture was introduced. Many of the village tanks were stocked with quick growing varieties of fishes. To impart the benefit of increased production to the fishermen community, and for their socio-economic betterment, fishermen co-operatives were encouraged. Fish-seed production units were established during the Third Plan at Malsar, Moti Koral, Kajelpur and Dabhoi.¹

The important fishing centres in the district are Bhadarwa, Anagadh, Dabaka, Mahammadpura, and Moti Koral.

Though there are vast water sheets available in the district, their potentiality for fish culture is required to be assessed. Under the scheme of Survey of Cultural Water and Spawning Grounds, such water sheets are surveyed. The spawning grounds of the major carps are also located and efforts to salvage the spawns are made. During the year 1973-74, about 560 hectares were thus surveyed.

In order to stock suitable sheets of water with quality fish seed, it is important to have enough seeds. Under the scheme of Fish Seeds Production and Distribution it is envisaged to collect the spawn from the natural breeding grounds and produce and rear the same. During 1973-74, about 738,800 seeds were produced of which 106,750 seeds were distributed.

The scientific principle under-lying the fish culture practices are not popular with the village Panchayats which own most of the village tanks in the district. With a view to demonstrate the correct principles and scientific practices of fish culture, it is envisaged under the Scheme of Demonstration and Experimental Fish Farm to hire few tanks and bring

1. *Aayojana Adhar Varsha*, (Gujarati), Vadodara Jillo, p. 13.

them under fish culture. During 1973-74, nine demonstration tanks were established in the district.

The intensive fish culture practices involve stocking of the fish in greater number in the limited area. Under the scheme of Intensive Fish Culture, it is envisaged to grant financial assistance by way of loans and subsidies to fish culturists for improvement of the tanks.

For intensive fish culture activities, the department advances loans and subsidies to municipalities and gram panchayats for deepening of tanks and repairing *bundhs*, etc.

There are five fisheries co-operative societies which are actively engaged in catching fish. Some of the societies are even undertaking the marketing of fish. The fishing population mainly consists of Kahar, Bhoi, Machhi, Koli, etc.

The following statement gives information about fish production, local consumption and export between 1970-71 and 1972-73.

STATEMENT IV-19

Fish Production, Local Consumption and Export

Year	(QUANTITY IN TONNES)		(VALUE IN LAKHS OF RS.)			
	Production		Consumption		Export	
1	Quantity 2	Value 3	Quantity 4	Value 5	Quantity 6	Value 7
1970-71	.. 3,265	28.52	810	7.04	2,455	21.48
1971-72	.. 1,735	16.59	532	4.69	1,203	11.90
1972-73	.. 2,613	22.50	603	4.25	2,010	18.25

Source : Commissioner of Fisheries, Gujarat State, Ahmadabad.

During the monsoon, the Department collects baby fish from the rivers Narmada and Mahi. These baby fish are then segregated and only quick growing varieties are stocked in the departmental nurseries situated at Vadodara and Dabhoi. The baby fish after being reared for three to four months in nurseries are sold to interested parties for stocking in the tank. Major carps are found in large numbers in the river Narmada. To increase the fish production, better qualities of fishing nets like nylon nets and nylon twins are supplied to fishermen and other fishing requisites at subsidised rates.

FORESTS

The forests occupied about 10.9 per cent of the district area in 1973 as against 9.17 per cent in the State. The total forest area was 646.27 km., according to the Conservator of Forests, Vadodara. Of this, 537.98 km., were reserve forests and 108.29 km., unclassed forests. Forests are situated on the eastern border of the district covering Chhota Udepur, Naswadi and Jetpur talukas. The main forest produce of the district are teak, timber and firewood. Regular forest coupes are exploited through the agency of the forest labourers co-operative societies where large number of Adivasi labourers are engaged.

The other minor forest produce like Timru leaves, gum, Rosha grass, Mahuda flowers and fruits, lac and Ashotri leaves are collected by the Adivasi labourers and this produce is sold to the forest contractors or the license holders. There are also major and minor minerals within the district and for their exploitation the forest areas are given on long lease. There is a semi Government project under the Gujarat Mineral Development Corporation at Kadi-Pani where a refinery project for fluorspar has been installed. The raw material in the form of fluorspar rock is excavated from Amba Dungar forest area. Thus in the mineral industry also a large number of Adivasi labourers are engaged.

Forest Development Schemes

Various schemes for the development of forests were undertaken during the First Plan period. The details regarding the area covered and expenditure incurred Plan wise, are given below.

Sl. No.	Period	Name of Scheme	Area in Hectares	Expenditure in Rs.
1	2	3	4	5
1	Ist Five Year Plan ..	Teak Plantation Scheme	33.91	772
2	IIInd Five Year Plan ..	Teak and Khair Plantation Scheme	89.56	5,781
3	IIIrd Five Year Plan ..	Teak-Khair and Bamboo Plantation	468.92	58,115
4	IVth Five Year Plan ..	(i) Teak Plantation Scheme	1,220.72	3,08,465
		(ii) Khair Plantation Scheme		
		(iii) Bamboo Plantation Scheme		
		(iv) Soil and Moisture Conservation and Afforestation of denuded hills.		

Source :
Conservator of Forests, Vadodara.

Forest Labourers Co-operative Societies

There are 10 Forest Labourers Co-operative Societies in the district. Chhota Udepur has eight and Jetpur (Jabugam) and Bodeli have one each. These societies are functioning since 1950.

The progress of the district towards the targeted 33 per cent of total land area under forest, set by the National Forest Policy in 1952, remains slow and tardy inspite of the grow-more tree campaign. The problem has become more urgent and critical because of the yawning gap between the available forest resources and the rising demand for forest produce due to the population rise and industrial growth. Industries like building construction, furniture, paper, rayon, plywood, matches, resin and tanning face persistent shortage of raw materials because the district has not made any head-way in increasing its forest area. Further, Vadodara suffered the worst-ever flood havoc in the year 1973 which perhaps could have been prevented if a long-term food protection plan through a vigorous tree-plantation drive in the vulnerable areas had been taken up earlier. A step in the right direction was taken by the people of Vadodara, recently (in 1974) when a group of people, announced the formation of 'Friends of Trees', an organisation to keep forests green and free from skyscrapers.

THE STATE ASSISTANCE TO AGRICULTURE

During the state regime, *tagavi* loans of three types, viz., (1) fixed, (2) famine and (3) special, were advanced by the state for financing agriculture.

The fixed *tagavi* also known as *Jathu tagavi* was granted to cultivators for agricultural improvements and for maintenance of their families. An interest of 5 per cent was charged and the sum had to be repaid by instalments. The famine *tagavi* was granted, as its name indicates, during famine or scarcity periods for purchasing seeds, fodder, water-lifts, etc. These loans were granted without any interest. Lastly, the special *tagavi* was granted when some special improvements were to be effected such as construction of new wells, installation of oil-engines, pumps, tractors, etc. Such loans were granted in special circumstances. For instance, soon after the great famine of 1899, large sums were sanctioned, without interest, as *tagavi* for the construction of wells. Between 1900 and 1908, about 5,500 new wells were constructed from such special grants. In spite of the facilities provided by the state, the cultivators, preferred to have their dealings with private money-lenders and applied for Government loans only when they could not obtain such loans from the local money-lenders. In view of the difficulties experienced by cultivators in obtaining necessary finance for development of agriculture, the Baroda State constituted the Land Mortgage Bank in the year 1932-33 with an authorised share capital of Rs. 25 lakhs. It served as an important link in the agricultural organisation of the state.

After the merger of the states in the Indian Union, the Government decided to establish a permanent agency to finance agriculture. In the former Bombay State it was the Bombay State Co-operative Land Mortgage Bank. After the formation of the Gujarat State, the Land Mortgage Bank in the State was renamed as the Gujarat State Co-operative Land Development Bank. It opened its branches at Chhota Udepur and Savli in 1961 while those at Jetpur-Pavi (Jabugam), Nasvadi and Tilakwada were opened in 1963. The branches at Padra, Dabhoi, Sinor, Karjan, Sankheda, Vaghodia and Vadodara were opened in 1967. Agricultural finance by this Bank plays a vital role in fulfilling the long-term credit requirements of the agricultural sector. As a result, the agriculturists are more inspired and inclined to take to scientific methods of farming requiring more credit facilities. Thus the advances made by the Bank become instrumental in accelerating the development of agriculture.

The following statement gives purpose wise details of the finance made available to the agriculturists by the Bank.

STATEMENT IV-20

Agricultural Finance Advanced to Cultivators from 1961 to 1973

Sl. No. 1	Purpose 2	Amount (Rs.) 3	Percentage to the total advances 4
1	Sinking of new wells and repairs to old wells ..	3,31,81,462	33.5
2	Oil-engines, electric motors, pumping sets, etc. ..	3,37,16,467	34.1
3	Purchase of tractors	1,01,73,511	10.3
4	Contour bunding	2,80,771	0.3
5	Farm houses, repairs and machine rooms ..	5,09,991	0.5
6	Redemption of old debt and other unclassified purposes	2,11,19,632	21.3
	Total	9,89,81,834	100.0

Source : *Annual Report, Gujarat State Co-operative Land Development Bank Limited, 1972-73, pp. 18-19.*

The statement given above shows that more than 67 per cent of the advances given by the Bank were utilised for increasing irrigational facilities, i. e., purchase of oil-engines, electric motors, pumping sets, etc., and construction of new wells or repairs of old ones.

The branchwise advances made by the Bank are shown in the following statement :

STATEMENT IV-21

Branchwise Advances upto June, 1973

Sl. No. 1	Branch 2	Advances during 1972-73 3	Advances Since beginning, upto 30th June 1973 4	Loan outstand- ing on 30th June 1973 5
		(Rs.)	(Rs.)	(Rs.)
1	Vadodara ..	14,25,363	84,22,250	66,61,962
2	Chhota Udepur ..	3,01,272	32,32,554	21,76,503
3	Savli ..	15,52,342	79,22,139	61,22,955
4	Nasvadi ..	2,30,940	50,14,070	38,63,534
5	Jetpur-Pavi ..	8,49,936	70,12,015	47,82,535
6	Tilakwada ..	2,43,789	26,17,784	21,12,845
7	Sinor ..	10,04,218	1,27,73,325	1,02,40,574
8	Padra ..	14,36,316	94,35,368	72,42,701
9	Vaghodia ..	12,09,642	47,15,077	34,79,694
10	Sankheda ..	8,17,582	83,38,700	63,27,624
11	Karjan ..	9,64,068	1,68,47,179	1,34,14,182
12	Dabhoi ..	5,11,813	1,26,51,373	95,11,909
	Total ..	1,05,47,281	9,89,81,834	7,59,37,018

Source : *Annual Report, Gujarat State Co-operative Land Development Bank Limited, (1972-73), pp. 30-31.*

The Small Farmers Agricultural Development Agency

A special agency of marginal farmers and agricultural labourers is formed in this district for ensuring development of agriculture by financing them. The project is in operation from 1970-71.

The District Panchayat has selected Vadodara and Padra talukas in the district which have the largest number of agricultural labourers and marginal farmers with land holdings less than two hectares. Chhota Udepur and Jabugam talukas are selected as backward talukas. The number of the tribal people residing in these talukas is quite large and a part of the land is covered by forests.

The scheme provides inputs like better seeds, fertilizers, service facilities and diversification of agriculture to marginal farmers of the selected talukas. This will raise the income of the marginal farmer and give him employment on his own plot of land during the slack season. Attempts are to be made

to generate employment opportunities for the agricultural labour. Other income-earning activities in his own homestead or small plot of land may be undertaken to augment the meagre income of an agricultural labourer.

It is proposed that marginal farmers may be provided with credit at an enhanced rate of Rs. 400 per acre as against Rs. 100 to 150 made available to them by co-operatives. As a result, they can undertake intensive cultivation and concentrate on improved input like seeds, fertilizers and pesticides. The expansion of agricultural credit in crop finance provides them adequate and cheap resources for better farming.

It is proposed to cover every year 2,023 hectares under hybrid *bajri*, 405 hectares under hybrid-cotton, 1,214 hectares under wheat varieties and 405 hectares under hybrid maize. By the end of the year 1973-74, 16,187 additional hectares belonging to marginal farmers are estimated to be covered under the high yielding cultivation through subsidised distribution of improved seeds. Each marginal farmer would be entitled to this subsidy only once during the term of the agency.

Under the soil conservation programme, contour bunding is proposed to be taken up in 2,023 hectares. In this district the average cost for carrying out contour bunding works is Rs. 50 per acre. This provides employment in the off-season.

Construction of 500 wells has been proposed. The cost of construction per well in the district comes to about Rs. 4,000. The agency provides subsidies to marginal farmers for lift irrigation through wells, installation of pumpsets, etc.

For the development of subsidiary occupations, the agency has given priority to the dairy industry and poultry. There is immense scope for development of dairy and milk producers' societies which provide an additional gainful occupation to marginal farmers and landless labourers having the homestead land.

FLOODS, FAMINES AND DROUGHTS

In the absence of any systematic attempt at recording events in the past, details about early famines are not easily available. When on two occasions during the last century, the Bombay Government requested the Resident of Vadodara to state what famines had occurred in the state, the only answer that could be given was: 'There were famines in the Vadodara territories in the years 1791 and 1813, but as to their extent and the causes from which they arose the Darbar was unable to give information, as there were no records concerning them. During the time they lasted, money was freely distributed from the state treasury, and labour on public works was provided.' Thus only

a faint memory remained of two very bad seasons, and nothing was recalled of other years of scarcity.

The famine of 1812-13 affected Vadodara to a lesser extent as compared to other parts of Gujarat but its effects were aggravated because of the immigration that took place, especially from Saurashtra and Rajasthan. Captain Carnac, Resident at Vadodara, gave a graphic description in the year 1815 of the famine he had witnessed. "In 1812, rain failed in Gujarat, and the country was full of famishing Marvadis who added to the general distress and refused to assist themselves by work. Every large town was surrounded by these miserable creatures, and in time the utmost indifference to their fate universally predominated. I have seen a child not quite dead torn away by a pack of dogs from its mother, who was unable to speak or move. The Brahman sold his wife, his child, sister and connections for the trifle of 2 or 3 rupees to such as would receive them. In the town of Vadodara alone, often more than 500 Marvadis died in a day. Their bodies during the famine were left unheeded on the spot where life expired, and then disease sprang up."

After 1813, no severe famine was recorded till 1877. The year 1877-78 was unfavourable, the rainfall being much below the average.

In 1878, the rainfall was excessive causing much injury to *bajri*, and in some places to cotton, *jowar* and pulse. The plight of the cultivators was multiplied by the devastations of locusts which appeared before the late Kharif crops were harvested. Grubs also are reported to have caused much damage. Besides what they got from private charity, the poorer classes of people received assistance from the State to tide over the time of distress.

In 1899, the rain-laden month of July yielded nothing. June had been normal, and the early showers had naturally induced the cultivators to begin their usual work. August passed as dry as July. And when September produced only a negligible rainfall, anxiety deepened further. By October, prices soared high and cattle began to die.

During the tour of the affected parts, the Vadodara ruler made following observations :

'I shall never forget the impression it made on me. God forbid that such miserable scenes and sufferings should ever be witnessed again. It is wonderful how the people put up with these hardships. They had resigned every hope of a happy existence, and seemed to think man could do nothing when God Himself proved unkind.'

1899-1900—Vadodara, like the contiguous districts of Gujarat, had its full measure of distress and suffering on account of the almost complete failure of rains in the monsoon of 1899. Severe famine conditions prevailed.

In the beginning of the season when there was a fair rainfall, the condition of the crop was promising but the failure of subsequent rains resulted in an almost total loss. The prices of *bajri* and *jowar*, the staple food-grains of the country, rose more than cent per cent. The price of rice alone was somewhat kept down in consequence of large imports from Rangoon. Prices rose on an average by 86 per cent. This is known as *chhapana* or the famine of Samvat 1956.

1904-05—Gujarat was in the grip of famine from August 1899 to December 1902. The people had tolerably fair harvests in 1903, but the rains failed again in 1904. There was thus hardly any room for recuperation, hardly any respite in this long series of seven lean years.

Scarcity was recorded in 1911-12. The people were spared but the fodder failed very early. Great herds wandered about from village to village in search of pasture and settled near the forest areas. But the herdsmen began to fall sick of the virulent malaria for which the forest is notorious. They and their cattle were exhausted; the river Tapi, which barred the way to healthier parts, was in flood, and the cattle were too feeble to swim. There were no grain shops; the herdsmen had no supplies. They gave up the unequal struggle and fled to less inhospitable parts, leaving their cattle to shift for themselves in the jungle.

To provide relief a Famine Commissioner was appointed by the Vadodara State to plan and organize relief operations. Special establishments were sanctioned for preparing important irrigation and drainage works. Advances were made to agriculturists on very easy terms repayable by convenient and easy instalments spread over 30 years. In a famine year this grant was augmented, loans were freely given for sinking wells. Large amounts were sanctioned as advances to cultivators to enable them to buy seed, corn, and agricultural implements. Separate loans were also provided for the artisan classes.

Of particular importance in dry famine years was the problem of ensuring a sufficiency of drinking water. Special boring tools, capable of penetrating to the deeper strata, were ordered from Europe and America. Gratuitous relief was provided to the aged, the infirm, and the destitute. In larger centres poor houses were started for the helpless victims of the famine. The Awal tank in Vadodara supplementing the Jojwa Orsang work was included in schemes of irrigation. The construction of railway occupied prominent place in the famine programme and the earth-work of the Nar-Vaso line of the district was included.

During the first decade of the century, the district was thus affected by scarcity practically every alternate year. Scarcity prevailed in 1903, 1905, 1907, 1911, 1917 and 1918. Since the year 1918-19, however, the frequency of scarcity was reduced to about once in every ten years. Thus after

1918-19 famine and scarcity conditions prevailed in 1919-20, 1929-30 and 1947-48.

After Independence, scarcity conditions prevailed in 1951-52, 1952-53, 1953-54 and 1957-58. The details of the number of villages affected in different talukas during these years are as follows :

Sl. No.	Taluka	No. of villages affected during			
		1951-52	1952-53	1953-54	1957-58
1	2	3	4	5	6
1	Chhota-Udepur ..	117	115	57	42
2	Dabhoi ..	..	..	..	7
3	Jabugam ..	..	59	..	49
4	Karjan ..	8	..	..	..
5	Padra ..	67	..	..	14
6	Sankheda ..	..	..	..	11
7	Vaghodia ..	31	..	..	60
Total ..		223	174	57	183

Source : Socio-Economic Review and District Statistical Abstract of Baroda District, (1958-59), p. 34.

The soil in this district is rich in fertility and retentive of moisture. As a result, inadequate rainfall does not materially affect the crop outlook. As such the district is now almost free from scarcity though a number of villages here and there suffer on account of untimely rains.

Though the Fact Finding Committee appointed by the State Government (1958-60) found no part of the district which could be considered as being frequently affected by the scarcity conditions, such conditions did obtain in a number of areas from 1963-64 to 1969-70. The number of villages, area and population affected and the number and cost of relief works undertaken are tabulated below.

Sl. No.	Year	No. of villages affected	Area affected in hectares	Population affected	Relief measures			
					No. of persons to whom labour provided	No. of works executed	Total expenditure on relief measures Rs.	
1	2	3	4	5	6	7	8	
1	1965-66	..	350	34,844	91,307	10,682	18	768,141
2	1966-67	..	209	11,189	84,798	10,879	14	497,815
3	1968-69	..	282	50,537	133,135	13,163	78	1,051,493

In 1968-69, extensive relief projects were taken up by village Panchayats to help the population of the drought affected areas. Construction of roads, tanks and wells was undertaken. Recovery of the land revenue worth Rs. 1.38 lakhs was postponed due to adverse conditions prevailing in different talukas of the district.

Floods

The Vadodara district alongwith several other districts of Gujarat was affected by a heavy flood during the year 1927. The flood was caused by continuous downpour for four days in the month of July, accompanied by fierce gale due to a storm in the Arabian Sea. The actual rainfall during these four days was, in most places, higher than the annual average. It ranged from about 13" in Tilakwada to about 33" in Vadodara taluka. The natural drains in the low-lying alluvial tract of the district could not cope with the enormous rush of water from all sides. As a result, all the rivers and streams overflowed submerging the surrounding areas. The agricultural season was more or less normal prior to the flood but the inundating rain during the four days made the situation difficult. During the entire season, Vadodara taluka received 81", Dabhoi 73" and Sankheda 70" of rainfall as against the decennial average of about 32". As a result of this unprecedented downpour, the different parts of the Vadodara city were isolated and a large number of villages in the district were cut off from the adjoining areas. Railway communications between Vadodara and other places broke down and the city was completely isolated from the rest of the world on the very first of the four days of the heavy rainfall. A large number of houses and villages collapsed. The villages on the banks of the river Mahi were the worst sufferers as entire hamlets were swept away in the rain.

Rescue work in different forms was undertaken by official and non-official agencies. Bands of youngmen from the local gymnasiums undertook rescue operations at considerable personal risk. All public buildings, schools, etc., in the Vadodara city and other important centres in the district were thrown open to the public for shelter. The Gaekwad State Government sanctioned an emergency grant of Rs. 50,000 for the relief work. The Gaekwad gave personal donation of Rs. 1 lakh to be utilised in free grants for rebuilding villages in the affected areas. A special scheme of *tagavi* was sanctioned to enable the cultivators to start the resowing operations on their fields. House building loans amounting to Rs. 17 lakhs were granted to those whose houses were damaged or destroyed by the floods. 9 villages including 8 on the bank of the river Mahi which were almost completely wiped out in the floods were rebuilt on high level sites.

In addition to the State Government, other agencies like the Gujarat Prantik Samiti, the Vadodara State Praja Mandal, the Servants of India Society, the Ramakrishna Mission, etc., and the Mahajans of Ahmadabad and Bombay contributed liberally to the relief measures. Sardar Vallabhbhai Patel played a very active role in rehabilitating the people in the affected parts. Under his guidance, Dr. Sumant Mehta and other social workers in Vadodara provided food, clothing and shelter to the people in the affected areas. Loans were granted to cultivators to purchase cattle and agricultural implements. A Central Relief Committee was formed in

Bombay which collected Rs. 13.50 lakhs for providing relief in Gujarat. From this Rs. 1.31 lakhs were spent in the Vadodara district.

In the Vadodara city alone loss of human life was estimated at 40. In the villages, about 40 persons were carried away by the floods and about 13 were crushed under houses. More than 2,300 animals were killed and about 43,000 houses were damaged. Loss to the standing crops in the fields was so heavy that about 50 per cent of the fields in the affected areas of the district had to be resown.

During the year 1969, the floods caused a heavy damage in the district. Out of 832 villages affected by the floods in the State the district accounted for 496 villages in the Tilakwada, Padra, Dabhoi, Sinor and Karjan talukas. About 53,685 people were affected by the floods which formed about 50 per cent of the population. Floods in the Narmada, the Vishwamitri and other rivers caused a colossal loss of life and property in the district. It is, therefore, imperative to provide long-term measures wherever feasible to put an effective stop to the recurrence of floods.

The district as a whole including the Vadodara city was again severely hit by the floods in 1970. The extent of damage caused by the floods to houses and crops was estimated at Rs. 8.18 lakhs and Rs. 238.60 lakhs respectively. In 1970, the worst affected talukas were Vadodara, Dabhoi, Padra, Vaghodia, Savli, Karjan, Tilakwada and Naswadi.

During the year 1973, floods caused a heavy damage in the district. The maximum rainfall of 1,519 mm. was recorded during the season. Tilakwada, Vaghodia, Vadodara, Dabhoi, Sinor and Karjan talukas in the district were affected by the flood waters of the Narmada and the Dhadhar. About 53,757 people and 785 cattle were affected by the flood waters. There was a colossal loss of property. Various relief measures were undertaken by the Government. Loans and subsidies of Rs. 2.54 lakhs were granted.

To find out the effects of the flood in the river Narmada a private agency conducted a survey in ten villages of Karjan taluka during 1973. The survey revealed that (i) an area of 1,681 hectares became useless due to the floods (ii) the total damage amounted to Rs. 40.76 lakhs, (iii) crop-wise damage in terms of value was as under.¹

Crop		(Rs. in lakhs)	
Cotton		..	33.10
Bajri		..	5.55
Other crops		..	2.11
Total		..	40.76

1. *Yojana* (Gujarati fortnightly), Press Information Bureau, Government of India, June, 16, 1974, p. 17.

STATEMENT IV-22
Minor Irrigation Schemes

Sl. No.	Name of Irrigation Scheme	Location			Commencement of construction	Year of completion	Cost of construction in (Rs.) (estimated)	Details of Dam.			Irrigation potential	
		River	Village	Taluka				Type	Length	Height	Top width	in hectares
1	2	3	4	5	6	7	8	9	10	11	12	13
1	Shripur Timbi ..	Local Kotars	Shripur Timbi	Vaghodia	N. A.	N. A.	3,41,847	Earthen Dam	2691	6	2	728
2	Dhanora,	"	Dhanora	Savli	N. A.	N. A.	6,16,375	"	2012	10	3	506
3	Haripura	"	Haripura	"	N. A.	N. A.	65,052	"	1890	8	2	259
4	Vadadala	"	Vadadala	"	N. A.	N. A.	69,429	"	1951	5	2	405
5	Manorpura	"	Nani-Bhadol	"	N. A.	N. A.	3,95,000	"	2012	6	2	297
6	Karchiya	Local Kotars	Karchiya	"	N. A.	N. A.	1,15,233	"	1585	5	2	486
7	Javla	"	Javla	"	N. A.	N. A.	26,600	"	2621	4	3	209
8	Muval	"	Muval	"	N. A.	N. A.	76,144	"	2438	6	2	541
9	Sarsi	"	Desar	"	N. A.	N. A.	46,120	"	2591	5	2	162
10	Shubhelav	"	Shubhelav	"	1966	1968	2,84,560	"	2341	3	2	117
11	Sarvan	"	Ganesh-pura	Vaghodia	1966	1969	2,50,660	"	2079	5	2	109
12	Kundanpur	"	Kundal	Jabugam	1970	1971	3,57,806	"	1890	5	2	124
13	Linda-Tekra	"	Linda	Nasvadi	N. A.	1972	3,47,930	"	137	7	3	163
14	Jojoa Vadhvana Irr. scheme	Orsang	Jojoa	Sankheda	N. A.	N. A.	N. A.	Masonry weir fall type pick weir	431	3	1	1,255
(A) Pick up weir at village Jojoa												
(B) -do- Tank .. Feeder canal												
			Vadhvana Dabhoi	N. A.	N. A.	N. A.		Earthen	8473	8	4	5,018

Source : Additional Executive Engineer, Panchayat Division, Vadodara.

CHAPTER V

INDUSTRIES

OLD-TIME INDUSTRIES¹

The areas comprising present Vadodara district had a number of old-time industries. Particularly the State of Vadodara was prominent so far as these industries were concerned.

Before the advent of modern industrialisation, there were found all over the State a number of industries. Among them, weaving was known since times immemorial and was carried on by artisans, mostly in their own homes. At Dabhoi, fine turbans were prepared. Some embroidery with gold and silver and silk thread was done at Vadodara, and other places and the work both in pattern and execution was of superior variety. Dyeing and calico-printing at Dabhoi was another old-time industry. The colours employed were generally red, indigo and black. Dabhoi was also known for its brass and copperware. Copper and brass sheets imported from Europe were used in the manufacture. Common articles were made for day to day use. Gold and silver ornaments of a superior description were manufactured at Vadodara. Wood engraving of a superior quality was also done at Vadodara. Articles manufactured out of sandal-wood, ebony and other kinds of wood had a sale in the markets of Europe. Sankheda was well-known for its lacquer work. All the above mentioned industries were carried on by artisans mostly in their homes with traditional equipments. But owing to the competition of machine-made cheap foreign articles, most of them declined for want of encouragement and patronage.

"The State of Baroda evinced keen interest in the industrial development of the State. As early as 1894, an Industrial Commission was appointed by the State. Writing about the industrial breakdown of Baroda the report states that the decline of trade has been chiefly felt in cloth and jewellery owing to the loss of State custom by the Shroffs, the cessation of Government dealings in money, the investment of State money in Government of India promissory notes, the withdrawal of Government funds from trade and commerce and active participation in them."²

1. DESAI G. H., *Statistical Atlas of the Baroda State*, (1918), pp. 18-19.

2. Cited in "*Baroda Banking Inquiry Committee Report*", (1929-30), p. 48.

INDUSTRIAL GROWTH VIEWED IN HISTORICAL PERSPECTIVE

Introduction

The district of Vadodara has acquired good industrial importance of late. For this the credit partly goes to the rulers of former Baroda State and partly to the mineral oil find in Gujarat. It would be pertinent, therefore, to review the industrial growth of the district historically. The present industrial structure in the district is a fusion of both the scale and products so that there is large measure of complementarity in products and employment and leaves scope for a number of sub-contracting industries. The industrial development in the modern sense commenced during the last quarter of the nineteenth century. Sayajirao Gaekwad found that no modern industrial unit was coming up in Vadodara and finding that this was partly due to the conservatism of the people, he resolved to start a spinning and weaving mill in 1885. The concern was a joint stock company and half of its capital was subscribed by the State. Another of his pioneering enterprise was a brick factory at Vadodara in 1890.

Alembic, a large pharmaceutical company in the country, was established in 1907 by the renowned scientist Shri T. K. Gajjar with the help of Shri Koti Bhaskar at Vadodara.

By 1908-09, the tempo of industrial growth had gathered momentum and as far as the Baroda State was concerned there was already an environment conducive to industrial development. Apart from the direct initiative taken by the State earlier to start a textile mill and other factories, the State was engaged in creating several facilities, rules, regulations and institutions to promote industrial and general development. In support of this it can be stated that the first industrial survey of the State was made in 1898. The ruler also tried to build up an industrial infra-structure though in a limited sense, in the field of education.

The Swadeshi Movement and Industrial Development

The Swadeshi Movement provided impetus to the industrial development, whose pace was accelerated by many internal measures adopted by the State. The development of industries was not confined to any one activity but covered a diverse group representing various fields. Industrialists, technicians and scholars were directed to take interest in processes related to leather, wool, chemicals and pharmaceuticals. Scholarships and grants were given for accomplishing this and a laboratory was started for testing of new processes and products. Members of the faculty at the Kala Bhavan were required to give free consultancy services to industries in Vadodara.



Jyoti Research and Development Centre
(By Courtesy—Jyoti Ltd., Vadodara)

Till 1949, the State exempted the octroi duty on raw materials and articles intended for the local manufacture. After the merger, the levy of octroi had proved burdensome to the industries in Vadodara. A compromise was finally arrived at in 1955. Since then the municipality has given a concession of 60 per cent in the octroi to industrial units located within the municipal limits. This concession is currently enjoyed by industries.

Industrial Development After 1910

The industrial development from 1910 onwards was influenced by the major phases such as the First World War, the aftermath of the same, the depression of the 'thirties and the Second World War.' By 1938, there were many industrial units dealing in cotton and woollen textiles, pharmaceuticals and iron works. In 1943, the Sarabhai Group of Industries entered Vadodara and established Sarabhai Chemicals for manufacturing fine chemicals and pharmaceuticals. The Jyoti Limited was established in 1943. It began originally as the engineering section of the Alembic Chemical Works. Jyoti which began as a separate unit with a gross block of about Rs. 6 lakhs soon had its impact in the field of engineering. It decided to apply itself solely to the development of hydraulic machines, pumps and electric motors. After Independence two Sikh brothers established the Punjab Rolling Mill at Vadodara.

Industrial Development at the Time of Merger

At the time of the merger, the district had industrial units in the field of textiles (cotton and woollen), iron and steel, chemicals and pharmaceuticals, electrical as well as mechanical engineering. The local industrial initiative also went into certain smaller fields of activities like pottery, bricks and tiles, oil mills and printing presses. These were by their very nature limited in scope.

Period From 1949 Onwards

Since 1949 onwards industrial development in the district was governed by all the rules and regulations as were applicable to the rest of the country. On the whole it can be said that in the post-merger period, the growth of industries was an outcome of the growth generated from within by leading industrial units.

In the fifties the growth of industrial enterprises was an outcome of a number of new forces like the emphasis on import restrictions and import substitutions during the plan period and foreign collaborations in one form or the other. The contribution of different collaborative arrangements has been that there was diversification of product lines and knowledge and

technical know-how available in foreign countries could be locally availed of. The Sarabhai Chemicals, Jyoti Limited and Shree Dinesh Mills made useful arrangements in specialized fields of production. The new industries which came up during 1955-56 to 1965-66 pertained to agricultural engineering, textiles machinery, textile bearings, other bearings for moving machine parts, steel wires and rods, steel furniture and other consumer durables, dyes and chemicals, transformers and switchgears and automobile spare parts. Many of these units were small and had a moderate capital base.

Industrial Development After 1965

A short resume of the industrial development that has taken place in the district is given below :

The city of Vadodara and its surrounding area have attracted a large number of industrial units and the industrial growth has been of very high order.

The development of the engineering industry has covered the production of oil mill machinery, textile machinery and small spare parts, agricultural implements, sanitary hardware, pipes, electric motors, metal furniture, casting, flour mill and pulse mill machinery and machines for chemical plants. The Hindustan Tractors Limited at Vishwamitri manufactures tractors and a complete line of agricultural and earth moving machinery in technical collaboration with firms from Czechoslovakia, Yugoslavia and the U. K. Some of the important engineering concerns established in the district are : Baroda Rolling Mills, Electronics Industries, Chandan Metal Products Limited, Gaskets and Oil Seeds Limited, Hindustan Brown Boveri Limited, Jyoti Limited, Precision Bearings, Punjab Steel Rolling Mills, Sayaji Iron and Engineering Company and Sussen Textile Bearings Limited.

Chemicals and Pharmaceuticals

The district had made a remarkable progress in the field of chemicals and pharmaceuticals. The Sarabhai Chemicals and the Alembic Chemicals Works are known for their medical products. They are described in detail elsewhere. These two concerns are large scale industries. Satyadev Chemicals, Suhrid Geigy, Synbiotics Limited and Raymon Glues and Chemicals are some other big industrial units producing chemicals and other consumer products.

with the discovery of oil in Gujarat in the early sixties an industrial base has firmly been laid in the district. The 4 million tonnes Gujarat

Refinery at Koyli is the pivot of industrial activities of great magnitude and dimension. Alike Refinery, the Indian Petro-chemical Corporation has also been established. The details of them are discussed elsewhere in the chapter.

Another important concern that has come into existence in the district is the Gujarat State Fertilizers Plant at Bajwa. It has manufactured and sold over a million tonnes of fertilizers and industrial products since 1967. The fertilizers complex has gone a long way in meeting the requirements of farmers in the State.

There are three cotton textile mills employing more than 5,000 workers and one woollen textile mill, with more than 850 employees at Vadodara. The Ashwin Industries at Samalaya manufactures vegetable ghee, soap and other consumer products. Among other industries paper and allied products, plastic, rubber and cement are developing over a wider area in the district. Two units producing important electronic spare parts partly serve the requirements of national defence. Baroda Electronics Industries and Yesha Electricals are two units participating in the programme. There are three units manufacturing glass products. Alembic Glass Industries completed 25 years in 1969. There are six units producing dyes for the textile industry. Soluble dyes, and vat dyes are some of the main products and these units employ more than 250 persons. Quite a large number of small scale units are engaged in optical industries and frame making. Being an important consuming centre, Vadodara has two cold storage units with a total storage capacity of 1,225 cubic metres. Looking to the population pressure and the present consumption of fruits and vegetables it has been estimated that the city may require the cold storage capacity of 5,457 tonnes of which only 373 tonnes are available at present. The additional requirement may involve capital investment of Rs. 47 lakhs-Rs. 37 lakhs for fixed capital and Rs. 10 lakhs for working capital.

The Baroda Municipal Corporation has purchased 30 acres of land at the village Duvad near Vadodara. The lands has been allotted to the co-operative society engaged in manufacturing bricks. In all 248 bricklayers are working there. Probably, this is the largest furnace in entire India. The co-operative society functioning at this village has also made a contract with the Baroda Municipal Corporation to supply the bricks to Corporation which is constructing 15,000 houses. The rate of bricks is Rs. 75 per one thousand.

The Statement V-1 gives data of important large and small scale engineering, chemical and other concerns located in Vadodara district.

STATEMENT V-1
Important Large Scale and Small Scale Engineering and Chemical Units
in the District for the Year 1974

Sl. No.	Name of the Unit	No. of persons employed	Total fixed capital in Rs.	Name of the products	Value in Rs.
1	2	3	4	5	6
1	Standard Radiators Private Limited, Vadodara	315	30,85,331	Radiator and radiator cores	99,70,395
2	Steel Fastners, Vadodara	10	1,90,000	Industrial Fastners, M. S. bolts and bright nuts	6,00,000
3	Trigon Metal Sections, Vadodara	100	2,00,000	..	..
4	Variety Body Builders, Vadodara	118	5,06,861	Equipment for atomic energy, power projects, chemicals and glass industries	21,92,687
5	Vasant Engineering Limited, Vadodara	175	10,00,000	Textile Engineers and machinery manufacturers	28,00,000
6	Banco Aluminium Limited, Vadodara	89	60,00,000	Aluminium bus bars and extruded sections	1,00,00,000
7	Bharat Forge and Press Industries (H) Ltd., Vadodara	50	25,00,000	..	21,00,000
8	Chandan Metal Products Private Ltd., Vadodara	450	20,00,000	Metal Furniture and equipment	..
9	Electro Engineering Products, Samiyala	50	4,00,000	Manufacturers and suppliers of electrical transmission line materials.	15,00,000
10	Gaskets and Radiators Private Limited, Vadodara	621	65,00,000	Gaskets and radiators.	3,00,00,000
11	Gujarat Automotive Gears Limited, Kalari	125	1,15,00,000	Transmission gears for trucks, motor cars, scooters, etc.	10,54,000
12	Hindustan Brown Boveri Limited, Vadodara	1,093	22 million (Gross)	..	100 million
13	Novino Lakhnawal National Ltd., Vadodara	216	160 lakhs	Dry cell (battery)	..
14	Novel Engineering Works, Vadodara	75	5,67,000	Chemical, pharmaceutical dyestuff dairy and other industrial machinery	22,15,000
15	Power Cables Private Ltd., Vadodara	228	39,45,000	Power cables	151.19 lakhs
16	Precision Bearings India Limited, Maneja, Vadodara	795	638.44 lakhs	..	447.44 lakhs
17	Roller Chain Industries Private Limited, Vadodara	88	3,87,000	Cycle and motor cycle chains	14,00,000
18	Sigil (India) Services Private Limited, Vadodara	210	28,14,678	Diesel engines, turbine pumps, sluice valves and centrifugal pumps.	64,81,520
19	Yamuna Engineering Company, Vadodara	70	5,00,000	Electric valves, actuators, electric operated valves, C.I. Gate valves, sluice valves, globe valves, cast steel valves, rubber lined valves, etc.	18,00,000
20	Ashish Electronics Private Limited, Vadodara	125	1,65,000	..	12,50,000
21	Spun pipe and Construction Company (Baroda) Private Ltd., Vadodara	27	5,00,000	R. C. C. spun pipes and Steel pipes	15,96,222
22	Swastik Engineering and Manufacturing Company Private Ltd., Vadodara	150	8,00,000	Textile machinery, flour mill-, oil mills, rice mills, deepwell pumps.	15,94,990

Source : The Federation of Gujarat Mills and Industries, Vadodara.

POWER

The development and economic prosperity of a region are judged by its industrial and agricultural growth. Power is the prime necessity and the generation of power and its consumption by industry and agriculture are the indicators of development. The areas comprising the present Vadodara district had a peculiar history of their own so far as power development was concerned. At the time of merger of Baroda State with Bombay State the availability of power was poor. However, with the commissioning of Dhuvaran Power Station, position has eased considerably.

Recognising the beneficial effects of the extension of the Electric Grid Scheme for irrigation purposes, the Government in fifties accorded administrative approval to the scheme of extension of North Gujarat Electric Grid Scheme to three talukas (Vadodara, Dabhoi and Vaghodia) of this district and several villages of the Kheda district at an estimated cost of Rs. 28,93,000. The extension of the North Gujarat Electric Grid Scheme to the Vadodara district had cost about Rs. 27,80,000. Apart from the agriculturists deriving benefits therefrom, the greatest beneficiaries had been the residents of Vadodara city. Large industries also made use of cheap power provided by the Grid scheme. The aggregate cost on this scheme was Rs. 57,50,000. During the years 1951-52 and 1952-53, an expenditure of Rs. 82,700 was incurred towards the electrification scheme in the Vadodara district.

There was only power station at Chhota Udepur of 300 KW installed capacity in the Vadodara district owned by the Gujarat Electricity Board as on 31st March, 1960.

After the formation of Gujarat Electricity Board, it was decided to construct bigger power stations at suitable places instead of smaller diesel or thermal power stations. So, it has constructed a number of high tension sub-stations and transmission lines to bring power from the Central generating station at Dhuvaran.

Sub-stationwise capacity is given in the following table.

Sub-stations	Capacity
Vadodara	60.5 MVA
Koyali	20.0 MVA
Jambua	10.0 MVA
Chandod	9.0 MVA
Miyagam	4.0 MVA
Kawant	4.0 MVA
Chhota Udepur	3.0 MVA

Three receiving stations were also established at the following places :

Name of the place	Capacity
Gotri (Vadodara taluka)	120 MVA of 132 KW
Jambua	100 MVA of 220 KW
Bajwa	60 MVA of 132 KW

Progress of Electrification

The progress made in electrification in the district can be compared from the table given below.

Sl. No. 1	Particulars 2	1960 3	1969 4
1	Number of villages electrified	54	275
2	Low pressure distribution transformers	120	750
3	Consumers of electricity for agricultural purpose	270	2,620
4	Consumers of low tension industrial power lines	240	775
5	High tension industrial connections	6	6
6	Total number of connections	6,009	32,500
7	Demand in Vadodara City	8,100 KVA	21,800 KVA
8	Demand in Dabhoi town	200 KVA	600 KVA
9	Demand in Karjan Town	125 KVA	300 KVA

Source : Bank of Baroda, *Lead Bank Survey Report on Baroda District*, Gujarat, March, 1971, p. 97.

At present, no diesel power station is existing in the district owned by the Gujarat Electricity Board. There were three private companies as on 31st March 1973, viz., (i) Baroda Municipal Corporation, Vadodara, (ii) Dabhoi Electricity Supply Co., Dabhoi, and (iii) Karjan Gram Panchayat, Karjan.

At present, the district is getting power through grid system.

Consumption of electricity during the years 1971-72 is given below :

Consumption of Electricity

Item	In 106 KW
(i) Domestic consumption	5.394
(ii) Industrial power consumption	521.711
(iii) Commercial consumption	1.534
(iv) Other consumption	47.136
Total	575.775

Source :

The Secretary, Gujarat Electricity Board, Vadodara.

The foregoing table shows that the consumption of electricity so far as industries are concerned claims the largest share of power in the district. This shows that there has been considerable industrial development in the district.

Rural Electrification

An important objective of the Third Five Year Plan was to develop efficient small scale industries in small towns and in rural areas so as to increase employment opportunities, raise incomes and living standard and bring about a more balanced and diversified rural economy. In achieving these objectives, the major limiting factor was the lack of power. With the supply of electricity, it has become possible to reorganise the traditional industries and to introduce small industries based on improved techniques in order to meet the new needs of the expanding rural economy. Three sub-stations have been established to accelerate the rural electrification programme in the district. They are located at Chhota Udepur, Savli and Bodeli providing electricity to the backward areas. The table given below shows the progress in the electrification of villages in the district upto 31st March, 1973.

Sl. No.	Name of the Taluka	Total Villages as per 1971 Census	Electri-fied villages as per 1971 Census	Percentage
1	2	3	4	5
1	Vadodara	112	56	50.0
2	Karjan,	94	58	61.6
3	Padra	82	59	70.7
4	Savli	136	45	33.8
5	Vaghodia	95	25	26.3
6	Dabhoi	118	51	42.2

Sl. No.	Name of the Taluka	Total Villages as per 1971 Census	Electri-fied villages as per 1971 Census	Percentage
1	2	3	4	5
7	Sankhoda	184	40	21.7
8	Jabugam	213	20	9.4
9	Sinor	40	36	90.0
10	Chhota Udepur	279	10	3.59
11	Naswadi	219	15	6.85
12	Tilakwada	117	18	15.4
	Total	1,689	433	25.6

Source :

The Secretary, Gujarat Electricity Board, Vadodara.

INDUSTRIES AND MANUFACTURES : MINING AND HEAVY INDUSTRIES

In the Vadodara district the following major minerals are found, viz., dolomite, feldspar, flourspar, graphite and limestone, oil and gas. The minor minerals found in the district are building stone, gravel (*kankar*), limestone, murrum, brick earth, ordinary clay, ordinary sand, road metal stones and marble. The rapid industrial development depends on the early collection of reliable data and on the potentialities of mineral resources : Systematic geological and mineral surveys were undertaken in various areas of the district by the State and the Central Directorates of Geology and Mining.

During 1964-65 the Geological Survey of India explored large deposits of dolomite and quartz estimated at 7,192 lakh tonnes and 23 lakh tonnes respectively. An area of 139 square kilometres was undertaken in Chhota Udepur taluka. In 1965-66 an additional area of 225 square kilometres was surveyed and deposits of dolomite, manganese and lead were found. An area of 300 square kilometres in Sankheda taluka was explored in the same year. This survey estimated a reserve of 68 lakh tonnes of green marble stone over an area of 29 hectares near Chhunchhapura village of the taluka. Sandstone and lead were also available though in small quantities. In 1966-67 an area of 260 square kilometres in Jabugam taluka was examined which gave an estimated reserve of 15 lakhs tonnes of dolomite and small deposits of graphite, limestone and manganese. Calcite, feldspar, asbestos, ferrous metal, dolomitic limestone and baryl were also found small quantities in Chhota Udepur and Jabugam talukas.

The Gujarat Mineral Development Corporation has undertaken an important project to develop flourspar deposits of Ambadungar in Chhota Udepur taluka where the estimated reserve is 116 lakh tonnes. The project is expected to contribute substantially in meeting the annual requirement of about 32,000 tonnes of the acid grade flourspar and 60,000 tonnes of the

metallurgical grade flourspar of the country, most of which is imported at present at a heavy strain of the foreign exchange resources of the country. A beneficiation plant for upgrading the raw flourspar available from the mines is being set up.

The Atomic Energy Commission has also undertaken a survey of Chhota Udepur taluka to find important atomic minerals. The Statement V.2 compares the production figures of major and minor minerals in the district and their value for the years 1967, 1968 and 1969. About 400 labourers are employed in mines and the beneficiation plant at Kadi Pani may provide further employment to the Adivasi people of the area.

STATEMENT V-2

Mineral Products in the District

(PRODUCTION IN METRIC TONNES AND VALUE IN '000 RUPEES)

Particulars 1	1967		1968		1969	
	Produ- ction 2	Value 3	Produ- ction 4	Value 5	Produ- ction 6	Value 7
Major Products :						
Dolomite ..	1,07,282	866	1,06,389	1,092	75,205	805
Graphite ..	390	..	819	..	2,038	204
Flourite ..	11,913	..	55,818	528	41,854	1,082
Limestone ..	5,974	33	8,451	..	11,125	63
Quartz ..	300	1	..	..	..	..
Felspar ..	26	3	..	..	36	..
Minor Products (Value in Rs.) :						
Gravel ..	440	2,055	..	..	6,470	19,411
Kanker ..	6,744	12,075	4,025	8,046	6,498	12,995
Limestone ..	241	1,446	89	445	127	541
Murram ..	..	..	896	1,792	3,420	6,840
Brick earth ..	2,07,000	2,07,000	13,625	27,250	13,138	66,275
Sand ..	80,899	1,61,798	..	..	..	..
Building Stones :						
(a) Road Metal	2,08,982	10,44,910	1,98,327	7,93,307	59,080	4,72,460
(b) Quartz ..	4,275	21,375	10,928	32,785	9,103	27,309
(c) Sand stone ..	2,948	11,792	8,497	25,491	11,778	35,035
Marble ..	959	2,878	1,278	6,394	852	1,70,400
Ordinary Clay ..	..	..	..	..	2,000	2,000
Bentonite ..	..	..	..	..	75	75
Granite ..	..	..	..	..	6,054	18,112
Others ..	8,340	8,340	2,692	2,030	..	..

Source :

Survey Report of Bank of Baroda, March, 1971.

Manganese Ore

Fairly good deposits of manganese-ore have been found at Pani, Ambla, Kadwat, Kalikui, Vandoth, Zari, Jothwad and Jalavi villages of Chhota Udepur taluka of the district. These deposits are of lower grade which contain less than 0.2 per cent of phosphorus. The mines at Pani have stopped working since 1963. In 1961 the production of manganese was to the tune of 11,711 tonnes.

In 1969, the production of manganese ore was stopped due to the low quantity. It was recommenced during the year 1972 in the Vadodara district. The Government of Gujarat has permitted for the mining of manganese ore as a special case. During 1972, the total production of the manganese ore was 1411 metric tonnes in the State.¹

TRENDS OF INDUSTRIAL DEVELOPMENT

We have examined the extent of industrial development that has taken place in the district. A fairly good account of the extent of industrialisation can be had by comparing decade's statistics.

The trends of industrial development during the last decade, 1960-70, are reflected in the number of factories and workers compared in Statement V-3 given at the end of the chapter. The figures indicate that as compared to the period 1960-65, the growth rate of industries as well as number of workers showed large increase during 1965-70. The total number of factories rose from 187 in 1960 to 356 in 1965 and 467 in 1970. As against the increase in the number of factories during both the periods, the employment opportunities also increased correspondingly. The employment rose from 28,107 in 1960 to 44,869 in 1965 and 52,473 in 1970. From the view point of employment, the most important units were spinning, weaving and finishing of textiles (8,691),² gins and presses (8,522), manufacture of machinery (8,012), manufacture of miscellaneous chemical products (7,796), electrical machinery (4,044), glass and glass products, (except optical lenses) (2,172), and metal products (except machinery and transport equipments) (1,226). From the view point of number of units, the most important units were manufacture of machinery (except (electrical machinery) (66),³ gins and presses (52), printing, book-binding, etc. (31) and non-metallic mineral products and manufacture of miscellaneous chemical products (29). The statement indicates directions of growth in which industrialisation has taken place in the district.

1. Government of Gujarat, Directorate of Geology and Mining, Ahmadabad, *Mineral Wealth*, Vol. 9, No. 4, October-December, 1973, p. 8.

2. Figures in brackets indicate the number of workers.

3. Figures in brackets indicate the number of factories.

Utilisation of Man-power

Any review of economic resources must take into account the most important of all the factors of production, namely, human resources as determined by its working force and its relative utilisation in gainful pursuits in different sectors of industries. The table given below indicates the distribution of working forces in secondary sector for the years 1961 and 1971.

Distribution of Working Force in Secondary Sector

Sl. No. 1	Economic Activity 2	1961 3	Percentage of total working population 4	1971 5	Percentage of total working population 6
<i>Secondary Sector :</i>					
1	At household industry ..	15,679	2.67	11,908	1.88
2	In manufacturing other than household industry ..	40,770	6.95	68,123	10.73
3	In construction ..	4,159	0.71	8,125	1.28
Total for Secondary Sector ..		60,608	10.33	88,158	13.89

Source : Census 1971, *Administrative Atlas*.

A close study of the foregoing table reveals that the percentage of total working force in the house-hold industry declined from 2.67 per cent in 1961 to 1.88 per cent in 1971. However, in manufacturing industry there was an increase of 3.78 per cent between 1961 and 1971. The construction sector also recorded an increase. This is evident from the fact that from 0.71 per cent in 1961, it increased to 1.28 per cent in 1971. On the whole working population in secondary sector increased from 10.33 per cent in 1961 to 13.89 per cent in 1971.

Annual Survey of Industries

Organised Manufacturing Sector of the District—The progress made by the large scale industrial units in the district is reflected in the results of Annual Survey of Industries conducted annually by the Government of India since 1959 under the Collection of Statistics (Central) Rules, 1959. The coverage of this survey extends to the factories registered under the Factories Act, 1948.

There are two sectors of Annual Survey of Industries, viz., Census and Sample sectors. In the Census sector, factories employing 50 or more workers with the aid of power or factories employing 100 or more workers without the aid of power are completely enumerated, whereas in the sample

sector, factories employing 10 to 49 workers with the aid of power and factories employing 20 to 99 workers without the aid of power are covered on the basis of probability sample. The table given below furnishes the data in respect of factories reported under the Census part of the Annual Survey.

Industrial Statistics of Vadodara District and Gujarat State

Year 1	Productive Capital (in '000 Rs.)		Employment (in numbers)		Net Value added (in '000 Rs.)	
	Vadodara 2	Gujarat 3	Vadodara 4	Gujarat 5	Vadodara 6	Gujarat 7
1959 ..	88,660	12,72,457	27,158	2,94,873	76,735	7,38,973
1963 ..	2,33,147 (40.7)	31,81,439 (37.5)	30,733 (3.3)	3,08,184 (1.1)	1,42,528 (21.4)	11,70,221 (14.6)
1964 ..	2,60,219 (11.6)	34,10,963 (7.5)	29,825 (-2.9)	3,24,847 (5.4)	1,04,697 (-26.5)	11,91,216 (1.8)
1965 ..	4,98,283 (91.4)	39,48,187 (15.7)	34,406 (15.4)	3,38,557 (4.0)	1,37,687 (31.5)	14,20,263 (19.22)
1966 ..	7,26,860 (45.9)	32,37,685 (-18.0)	35,337 (2.7)	3,10,757 (-8.2)	2,08,458 (51.4)	14,33,688 (0.9)

NOTE : The figures in the brackets give an average rate of growth (for each year) of productive capital, employment and net value added.

From the table it would be observed that the district accounted for about 22.5 per cent of productive capital, 11.4 per cent of employment and 14.5 per cent of value added by all the manufacturing industries of the State in 1966. The percentage share of Vadodara district in productive capital, employment and net value added in the sector showed a continuous increase over a period of four years. As can be calculated from above mentioned table the average rates of growth of productive capital for Vadodara and Gujarat were 47.4 per cent and 14.6 per cent per annum respectively. The employment showed an average rate of growth of 4.6 per cent and 0.6 per cent per annum for Vadodara and Gujarat respectively.

This shows that capital has been growing at a faster rate than employment both for the district and the State. The average rates of growth of net value added by the district and the State were 19.5 per cent and 9.1 per cent respectively. It is interesting to note that the highest rate of growth of productive capital for the Vadodara district was 91.4 per cent in 1964-65 for the State it was 37.5 per cent in 1959-62 (simple arithmetic average).

It surprises one to note that when the productive capital showed as high a rate of growth as 45.9 per cent for the district, the same for the State showed a decline of about 18.0 per cent in 1965-66. This comparison of different rates of growth definitely shows that Vadodara district has been developing at a much faster rate than the State.

REGISTERED FACTORIES

The statistics of registered factories throw some light on pattern of industrial development of the district. The table given below indicates evolution and pattern of factory employment in the district.

Number of factories and average daily employment therein in the district of Vadodara during 1960-68.

Sl. No.	Year	No. of working factories	Percentage change	Working factories submitting returns	Working factories not submitting returns as percentage of total working factories	Average daily employment in factories submitting returns
1	2	3	4	5	6	7
1	1960	251	..	223	11	27,886
2	1961	264	4	257	2.7	31,436
3	1962	288	2	287	2	35,486
4	1963	297	3	290	2	38,347
5	1964	316	6	303	4	39,909
6	1965	355	12	316	11	44,692
7	1966	364	3	312	14	39,583
8	1967	373	3	300	19	39,933
9	1968	397	7	309	22	37,965

Source :

Districtwise summary registers of the working of the Factories Act of 1948 in Gujarat, Chief Inspector of Factories, Government of Gujarat.

From the above mentioned table, it would be observed that in 1960 Vadodara district provided factory employment to 27,886 persons and most of this was perhaps provided by a handful of big units in textiles and chemical industry in Vadodara proper. In 1968, the picture was slightly better. The district provided factory employment to 37,965 persons in 1968. In 1971 the position still improved. This is evident from the analysis of the statistics that follows.

According to the returns furnished by the Chief Inspector of Factories, the total number of registered factories was 538 in 1971. Among these factories, 507 factories were in the private sector. The public sector accounted for only 31 factories. According to the prescribed industrial classification, their break-up is given in the sub-joined Statement V.4. Among the factories working in the private sector, 468 were actually working in 1971 and 39 were closed.

From the view point of number units, the most important units in the private sector were non-metallic mineral products (except products of

petroleum and coal) (74)¹, machinery (except electrical machinery) (70), processes allied to agriculture (gins and presses) (59), chemical and chemical products (52), etc. From the view point of employment, the most important units in the private sector were chemical and chemical products (8,803)², textiles (8,605), processes allied to agriculture (gins and presses), (7,112), machinery, (except electrical machinery) (5,395), electrical machinery, apparatus, appliances and supplies (4,745), etc. The industries in operation covered a fairly good range of products based on local and imported raw materials like cotton, tobacco, groundnut and important minerals. During 1960-68 the working factories in Vadodara district as proportion to the total working factories in the State increased from 6.6 per cent to 7.8 per cent.

STATEMENT V-4

Employment in Different Industries for the Year 1971

Sl. No.	Name of Industry	Total No. of factories	Total No. of working factories	No. of working factories submitting returns	Average No. of workers employed daily in working factories submitting returns	Estimated Average No. of workers employed daily in working factories not submitting returns
1	2	3	4	5	6	7
I PUBLIC SECTOR						
1	Printing, publishing and allied industries	1	1	1	559	..
2	Chemical and chemical products	1	1	1	783	..
3	Products of petroleum and coal	2	2	2	662	..
4	Non-metallic mineral products (except products of petroleum and coal)	1	1	1	175	..
5	Machinery (except electrical machinery)	6	6	5	914	20
6	Transport equipment	10	10	9	1,350	20
7	Electricity gas and steam	5	5	5	135	..
8	Water and sanitary services	5	5	5	125	..
	Total	31	31	29	4,708	40

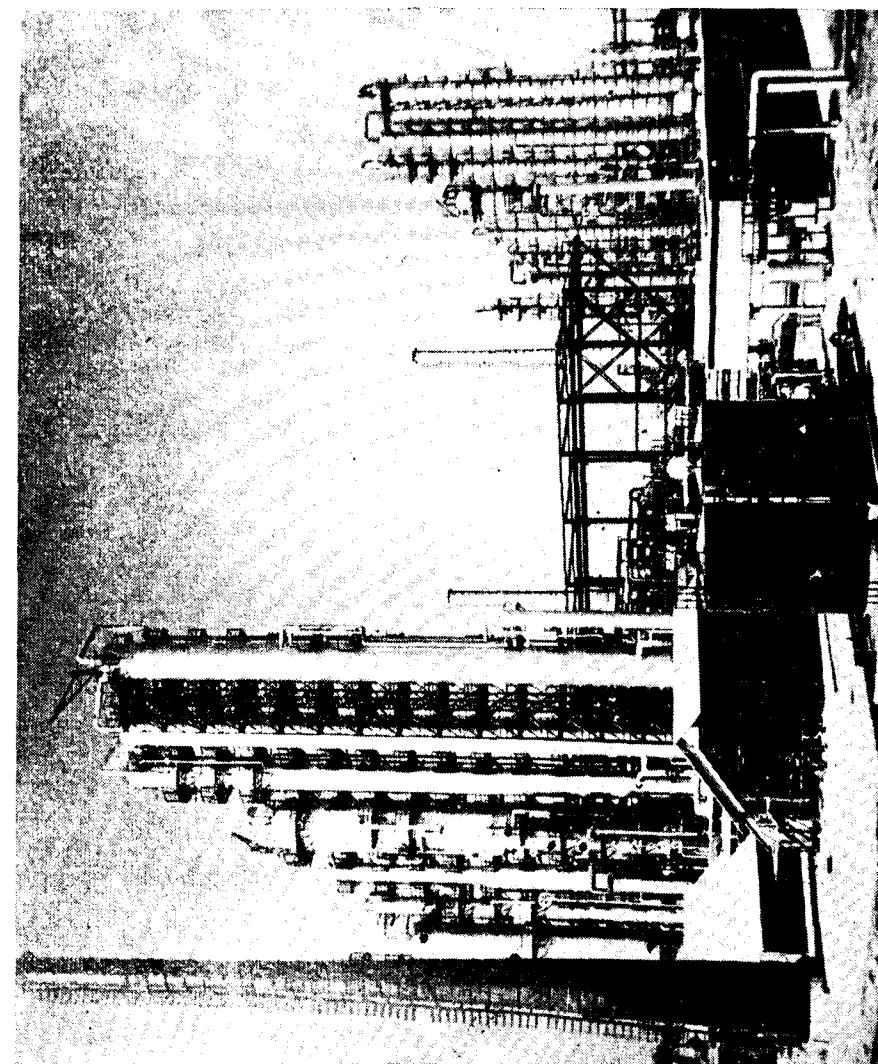
1. Figures in the brackets indicate the number of units.

2. Figures in the brackets indicate the number of workers.

STATEMENT V-4—contd.

Sl. No. 1	Name of Industry 2	Total No. of factories 3	Total No. of working factories 4	No. of working factories submitting returns 5	Average No. of workers employed daily in working factories submitting returns 6	Estimated Average No. of workers employed daily in working factories not submitting returns 7
II PRIVATE SECTOR						
1	Processes allied to agriculture (Gins and Presses)	59	55	48	7,112	891
2	Food except beverages ..	19	18	15	968	75
3	Beverages	1	..	..	..	..
4	Tobacco	24	19	13	541	148
5	Footwear, other wearing apparel and made up textile goods	..	..	..	..	..
6	Textiles	10	10	10	8,605	..
7	Wood and cork except furniture	5	4	2	69	45
8	Paper and paper products ..	15	14	12	313	45
9	Printing, publishing and allied industries ..	31	31	24	478	139
10	Rubber and rubber products	8	8	7	702	30
11	Chemical and chemical products	52	50	41	8,803	224
12	Non-metallic mineral products (except products of petroleum and coal) ..	74	61	42	2,973	542
13	Basic metal industries ..	16	16	11	1,108	158
14	Metal products (except-machinery and transport equipment)	26	26	20	1,001	182
15	Machinery (except electrical machinery)	70	68	57	5,395	257
16	Electrical machinery, apparatus, appliances and supplies	40	38	27	4,745	383
17	Transport equipment ..	16	14	12	320	45
18	Miscellaneous industries ..	40	35	30	1,245	115
19	Electricity, gas and steam	1	1	1	21	..
Total ..		507	468	372	44,399	3,279
Grand Total ..		538	499	401	49,102	3,319

Source :
The Chief Inspector of Factories, Gujarat State, Ahmadabad.



Oil Refinery at Koyali near Vadodara

The particulars of the most important among large scale industries are given below.

Gujarat Refinery, Vadodara

The foundation of the third Public Sector Refinery, known as Gujarat Refinery, was laid by Shri Jawaharlal Nehru on 10-5-1963, and the construction work was started in October, 1963. This refinery is built up in collaboration with the Russian Government. The trial production of this refinery took place on 11-10-1965, and in two months' time the first million tonne capacity was achieved. The installed capacity of the refinery was 3 million tonnes. However, efforts were constantly made to raise the capacity by alterations, modifications and re-arrangements of the existing equipments. This way, considerable rise, *i. e.*, about 4.3 million tonnes in the production capacity has been achieved till 1973. A beginning was made at Gujarat Refinery for designing as well as preparing working drawings. Attempts were also made to use indigenous materials as far as possible.

Gujarat Refinery is located at Vadodara near the important oil fields which are surrounded by the villages of Koyali, Ranoli, Karachia, Dhanora, etc. The total area acquired for the refinery was 1800 acres, a part of which has been given to the Gujarat Government for distributing to various units for the petro-chemical complex. (The raw material, *i. e.*, special quality Naphtha for petro-chemical complex), now under construction were supplied by the refinery and this Naphtha is also supplied presently to GSFC for producing chemical fertilizers.

The sources of crude supply are from Ankleshwar and North Gujarat. The crude is supplied to the refinery from Ankleshwar through a 350 mm. pipeline and the second source of crude supplied is from North Gujarat oil fields through a 324 mm. 127 km. long pipeline from Kalol and Navagam. Over and above, condensate from Cambay gas fields is also received. The entire crude supply is made by Oil & Natural Gas Commission.

Present Products of Gujarat Refinery

The refinery is producing the following products :

- (1) Motor spirit (as fuel for motor cars, etc.)
- (2) Superior kerosene (for domestic use, etc.)
- (3) High speed diesel (for diesel engines.)
- (4) Light diesel oil (for field pumping sets, etc.)
- (5) LSHS — Low sulphur heavy stock (used as fuel)

- (6) Aviation turbine fuel (for jet planes.)
 - (7) Benzene
 - (8) Toluene
 - (9) Naphtha
- } Raw material for various industries
- (10) Liquified petroleum gas known as Indane by trade name (for domestic use), etc.

There were about 1,450 employees employed in the refinery during 1972-73 and this also included Officers and other managerial staff. Total salary disbursed during the same year was around Rs. 1,38,15,000 (This figure does not include bonus, gratuity, provident fund contribution, etc.)

Expansion of Gujarat Refinery

Government of India has decided to expand the present refining capacity to 7.30 million tonnes from 4.30 million tonnes at the cost of Rs. 28.08 crores including a foreign exchange of Rs. 8.67 crores.

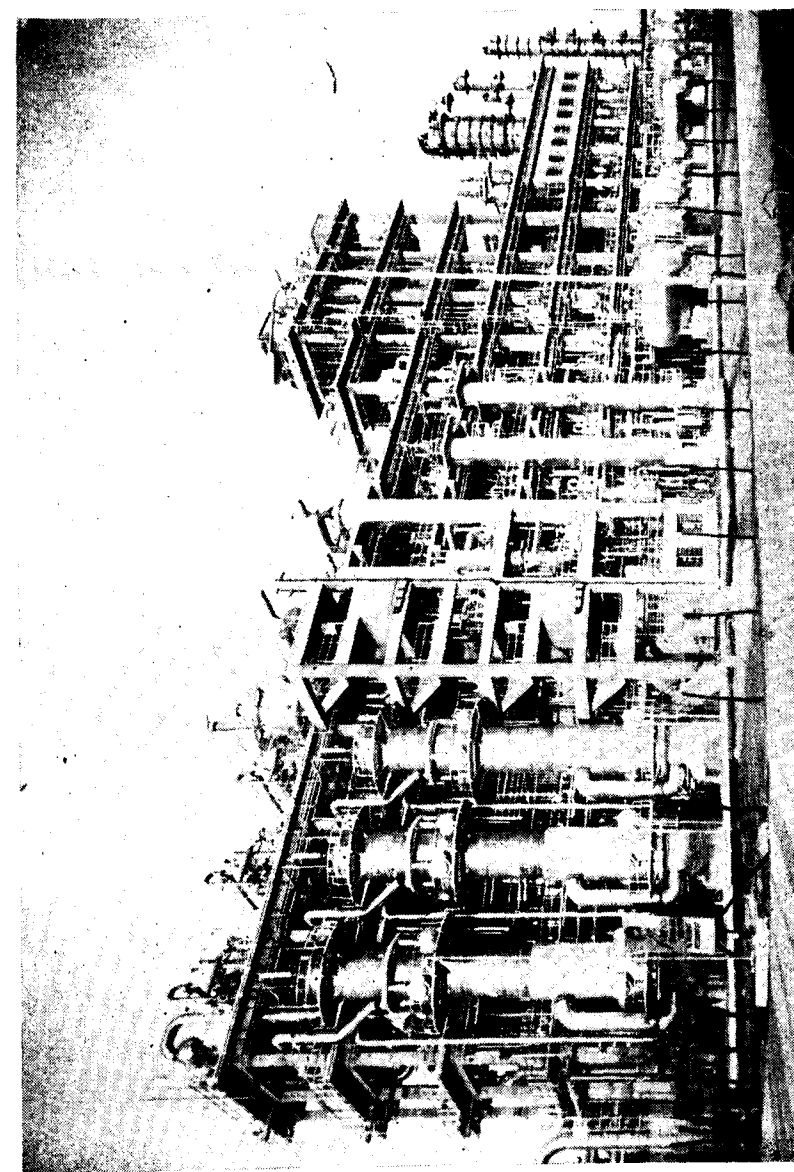
Indian Petrochemicals Corporation Limited, Vadodara

The organic chemical industries were started in India with alcohol, calcium carbide and monomers as feedstocks. In the mid-sixties, it became apparent that the growing requirements of different consumer and industrial products could no longer be met economically from traditional raw materials like cotton, wool, vegetable and animal oils, natural rubber, steel, non-ferrous metals like copper, lead and aluminium, wood, paper and glass; and, therefore, units based on petroleum feedstocks were to be set up. A programme in this direction was then undertaken.

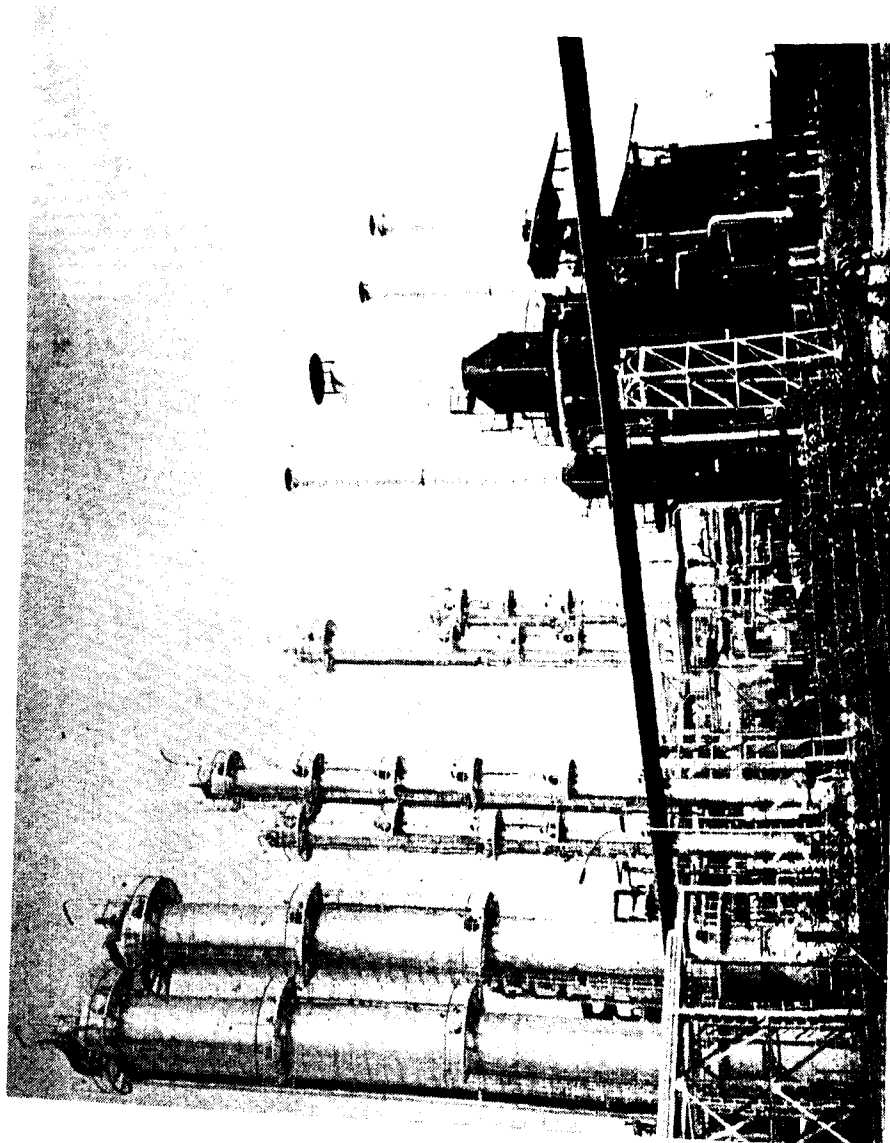
The first such was the Gujarat Petrochemical Complex near Vadodara. In this complex, Indian Petrochemicals Corporation Limited, a wholly owned Central Government enterprise, was given the much needed fillip to the petrochemicals industry in the country.

The company was established in March, 1969 with an authorised capital of Rs. 30 crores to carry on the business of processing, manufacturing and distribution of organic and inorganic chemicals derived from petroleum hydrocarbons. The Corporation has an authorised share capital of Rs. 60 crores. As on 31st March, 1974, the paid up capital of the Company was Rs. 45.15 crores. In addition a sum of Rs. 16.70 crores has been drawn as loan from the Government of India.

The first petrochemical complex Corporation near Vadodara comprises :



Petro-Chemicals Complex—A view of the DMT Plant



A view of the Ortho-xylene Plant of IPCL

A. Aromatics Project

B. Olefins Project and its downstream units, i. e.

- (i) Acrylonitrile plant ;
- (ii) Synthetic Rubber plant ;
- (iii) Low Density Polyethylene plant ;
- (vi) Polypropylene plant ;
- (v) Ethylene Glycol plant ;
- (vi) Detergent Alkylate plant ; and
- (vii) Acrylic Fibre plant.

C. Polyester Filament Yarn Plant

Aromatics Project

The project comprises two distinct units—DMT and Xylene—with the following manufacturing capacities :

Dimethyl Terephthalate (DMT)	24,000	tonnes/annum
Para-xylene (for captive conversion into DMT)	17,000	" "
Ortho-xylene	21,000	" "
Mixed-xylene	2,500	" "

The investment on the project is of the order of Rs. 28 crores.

The foreign technical collaborators are M/s Fried Krupp Chemiennl-agenbau of West Germany. The foreign exchange requirements for the project (Rs. 9.90 crores approximately) have been met by the long term credit provided by KFW, West Germany.

The DMT unit was commissioned in March, 1973 with imported para-xylene and product of international specifications was obtained within 10 days of commissioning. A total of 5,109 tonnes of DMT has been manufactured and marketed upto 31st March, 1974.

The reforming, ortho-xylene and isomerisation plants were commissioned in August, 1973. During the month of December, 1973 a record production of more than 1,850 tonnes of ortho-xylene and mixed xylenes was achieved. This works out to about 93 per cent of the installed capacity. The total production of ortho-xylene and mixed xylenes upto 31st March, 1974 has been of the order of 7,922 and 1,944 metric tonnes respectively. Out of this, 2500 tonnes of ortho-xylene has been exported to Italy through State Trading Corporation.

The para-xylene plant was commissioned in December, 1973 but was subjected to some teething troubles. Upto the end of March, 1974 a total of 1,215 tonnes of para-xylene has been produced.

Olefins Project—Naphtha Cracker

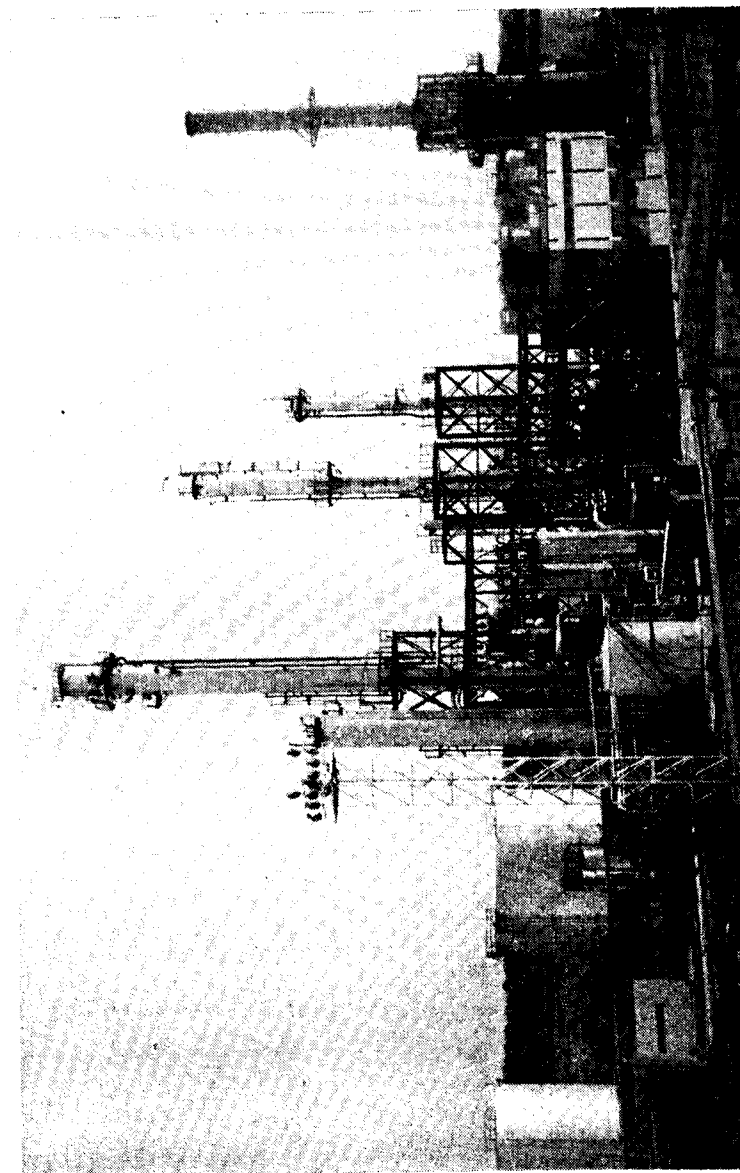
This project envisages manufacture of 1,30,000 tonnes per annum of ethylene, 38,000 tonnes/annum of polymer grade propylene, 33,250 tonnes/annum of industrial grade propylene, 23,875 tonnes/annum of benzene and 18,100 tonnes/annum of butadiene. The commissioning of this project is linked with its downstream units. The project is being implemented in collaboration with M/s Lummus of U. K. and foreign exchange requirements are, to a considerable extent, being met from U. K. credit. The detailed engineering of the Naphtha Cracker is now under way. Major equipment—indigenous and foreign—have been ordered and civil works construction is in progress.

The Project cost of the Olefins Project was originally estimated at Rs. 58.05 crores inclusive of Rs. 16.02 crores of foreign exchange component. This estimate is now under revision taking into consideration revision in exchange rates, customs, duties, price escalations, etc.

Downstream Units

The details relating downstream units of Olefins Project (Naphtha Cracker) are as follows :

Sl. No. 1	Unit 2	Investment (Rs. in- crores) 3	Foreign exchange (Rs. in- crores) 4	Main source of Foreign exchange 5	Annual capacity in tonnes 6
1	Acrylonitrile ..	17.04	6.25	Dutch General purpose Credit (Government to Government)	24,000
2	Synthetic Rubber	15.60	3.43	Canadian Development Loan (Government to Government)	20,000
3	Low Density- Polyethylene ..	33.50	13.63	French Credit (Government to Government)	80,000
4	Polypropylene ..	18.87	5.52	Italian suppliers' Credit	30,000
5	Ethylene Glycol	9.10	2.35	Free foreign exchange	20,000
6	Detergent Alkylate ..	12.92	3.03	Free foreign exchange/Swe- dish and Dutch Credits (Government to Govern- ment)	30,000
7	Acrylic Fibre ..	23.39	9.33	Japanese Yen Credit	12,000



A view of Petro-Chemicals Complex

The products of the naphtha cracker, mostly gaseous, cannot be stored, and, therefore, commencement of the naphtha cracker and the downstream units has to be synchronised. In view of the need for dovetailing the progress of the various projects-downstream to the naphtha cracker-a realistic schedule of completion of the entire Olefins complex is being worked out.

Polyster Filament Yarn Plant and Other Projects

The Government of India have decided to set up in the joint sector a polyester filament yarn plant in the Gujarat Petro-chemicals Complex with an initial capacity of 3,500 tonnes/annum expandable to 7,000 tonnes per annum at an estimated initial investment of about Rs. 25 crores (with a foreign exchange component of about Rs. 7.00 crores). This units will be set up as a joint venture in collaboration with the co-operative societies of actual weavers in the country. The Government of India will directly participate in the equity capital on 60 : 40 basis with the weavers co-operative society. Loans will be obtained from financial institutions. Working capital will be obtained from banks.

Gujarat State Fertiliser Limited

When Gujarat became a separate State after the bifurcation of the bilingual Bombay State, it was realised that one of the most important inputs required for agriculture was fertiliser. To meet the enormous needs of food for the ever increasing population of the country, it was necessary *inter alia* to produce more fertilisers in the country itself rather than depend on imports. Accordingly in 1960 the Government of Gujarat, then under the able leadership of Dr. Jivraj Mehta, conceived of this project. A new company called Gujarat State Fertilisers Company Limited (G. S. F. C.) was established in 1962 near Vadodara to manufacture 1,50,000 T. P. A. of Ammonia, 1,00,000 T. P. A. of Urea, 1,50,000 T. P. A. of Ammonium Sulphate and 1,08,000 T. P. A. Diammonium Phosphate. While the first phase of plants were still under erection, it was decided to undertake the second phase of expansion with an additional capacity of 1,65,000 T. P. A. of Ammonia and 2,64,000 T. P. A. of Urea. The erection of first phase of plants was completed in the remarkably short period of 22 months after the effective date of the contract.

Financially the unit's position has been remarkably sound, with a paid-up capital of Rs. 12 crores, the gross block of the company today is valued at Rs. 96.53 crores and the net block at Rs. 41 crores, giving an intrinsic value of each equity share of Rs. 100.

While in the very first year of production, the unit was able to market 1,175 lakh tonnes of fertilisers, the sales rose steadily and in 1972-73, mounted to 5,471 lakh tonnes, the Urea Plants being able to utilise 96 per cent of the installed capacity.

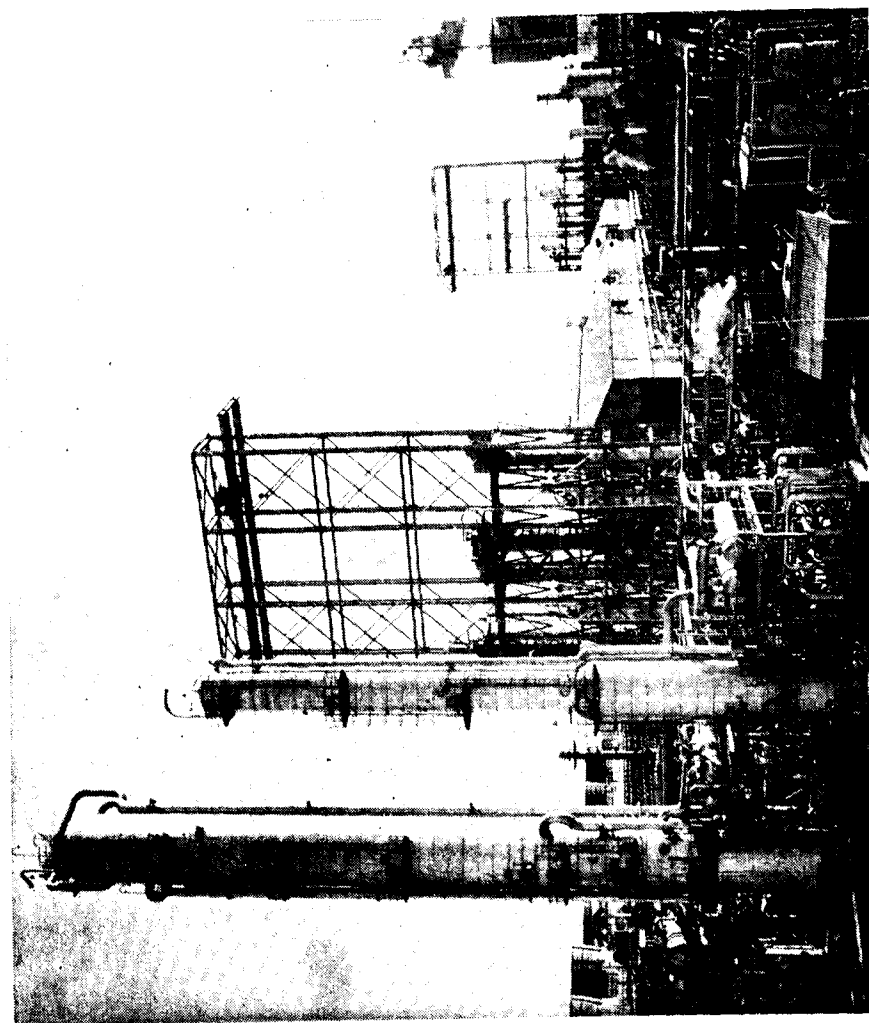
In 1967, the unit conceived of the Caprolactam project besides fertilisers. Caprolactam is the basic raw material for Nylon-6 and heretofore totally imported. This project was considered because the essential raw materials required are Ammonia and Benzene which are available in Vadodara. The unit had capacity for the former in its own plants and benzene could be had from the refinery situated next door. The unit took prompt steps and finalised agreements with European parties in June, 1970. M/s., Inventa of Switzerland provided the know-how. M/s., Technipetrol of Rome was made responsible for front-end engineering and Technique of Pairs for procurement of imported equipment. The contracts were approved by the Government of India in March, 1971 and unit was able to start commissioning of this very sophisticated plant, having a capacity of 20,500 T. P. A. and costing nearly Rs. 36 crores in March, 1974. The commercial production of Caprolactam is now expected to start any day.

While the Caprolactam project was in execution, the unit has concluded collaboration agreements with M/s. Badger of the UK for a 30,000 T. P. A. of Styrene and 17,000 T. P. A. of polystyrene plant. Again the basic raw materials required for this project are benzene and ethylene, available from the Koyali Refinery and/or Indian Petrochemicals Corporation Limited. Polystyrene is a versatile plastic, extensively used in synthetic rubber. The Government of India was requested as long as in August, 1973 to issue the licence. Since then the matter has been under its consideration but it is understood that the company will get the necessary clearance shortly. As in March, 1974, the project has been estimated to cost Rs. 16.25 crores, the foreign exchange component of which would be nearly Rs. 5.30 crores. It is likely that these figures would need some upward revision in view of the prevailing conditions.

Company has decided to manufacture 10 tonnes per day of plastic grade chips only. This request has been pending with the Government of India and it is hoped that the necessary sanction may be received soon. This Project is estimated to cost Rs. 8.12 crores, of which Rs. 2.25 crores will be needed in foreign exchange.

Besides the unit has other smaller projects in hand for recovery of argon, methanol, melamine, etc., and hopes that it will also be allowed in due course to double or even multiply further.

Recently the company has received a letter of intent from the Government of India for another fertiliser plant having a capacity of 1350 T. P. A. of Ammonia and 1600 T. P. A. of Urea. This would mean that the Ammonia capacity of the new plant will be nearly 50 per cent higher than the present plant and so also the Urea capacity would



Gujarat Fertilizer Co.

exceed the present plant by nearly 500 tonnes per day. This plant is estimated to cost Rs. 120-130 crores.

The Heavy Water Project, Vadodara

The Heavy Water Plant being set up at Vadodara is based on mono-temperature ammonia-hydrogen exchange process. The contract for the Plant was awarded to a consortium of European firms and is effective from 31st October 1969. The Plant is in the final phase of erection and is expected to be commissioned shortly. The installed cost of the Plant is about Rs. 17 crores and about 50 per cent of this is in foreign exchange. It would become operational in 1974 and would be the only Plant operating in the world at that time. The purpose of setting up the Plant, is to produce heavy water which is to be used as moderator and heat transfer agent in natural uranium fueled nuclear reactors, which are being set up in the country. The annual capacity of the Plant is 67.2 tonnes. The Plant utilises the synthesis gas produced at the Gujarat State Fertilizers Company Limited for production of ammonia, as source of heavy hydrogen (deuterium). The entire quantity of the synthesis gas produced at G. S. F. C. containing about 125 ppm deuterium, is routed through the Heavy Water Plant. After extraction of the deuterium, the entire synthesis gas is returned to G. S. F. C. for their normal production of ammonia. Following are the salient features :

1. Tonnage of structural steel used	1,550
2. Weight of equipment erected	2,700 Tonnes
3. Weight of high pressure piping and fitting	700 Tonnes
4. (i) Out of the equipment erected, six of them each weigh about 95 tonnes.	
(ii) Weight of exchange tower transported and erected in single piece (without internal and top cover).	530 Tonnes
5. Power required for normal operation	9 MVA
6. Total plant area	21 Acres

The permanent set up consists of 300 persons and annual salary bill is of the order Rs. 16 lakhs. This is the heaviest piece so far handled in India.

At the Vadodara Heavy Water Plant Potassium amide is used as a catalyst. For making potassium amide, metallic potassium is required. To meet the requirement, a Metallic Potassium Plant with an annual capacity of 30 tonnes, is being set up in the Heavy Water Plant area at Vadodara. The estimated cost of the Plant is Rs. 44.5 lakhs with a foreign exchange component of about 8 per cent. Plant is expected to be commissioned by end of 1974.

The Department of Atomic Energy is also setting up a 100 tonnes per day of Ammonia Synthesis gas preparation Unit in the Gujarat State Fertilizers Company area at a cost of Rs. 5.3 crores with a foreign exchange component of about 40 per cent. The Plant is based on natural gas as feed stock. This will enable to have a stabilised production of heavy water at full capacity of the Plant and also help in production of additional fertilizer.

Alembic Chemical Works Company Limited, Vadodara

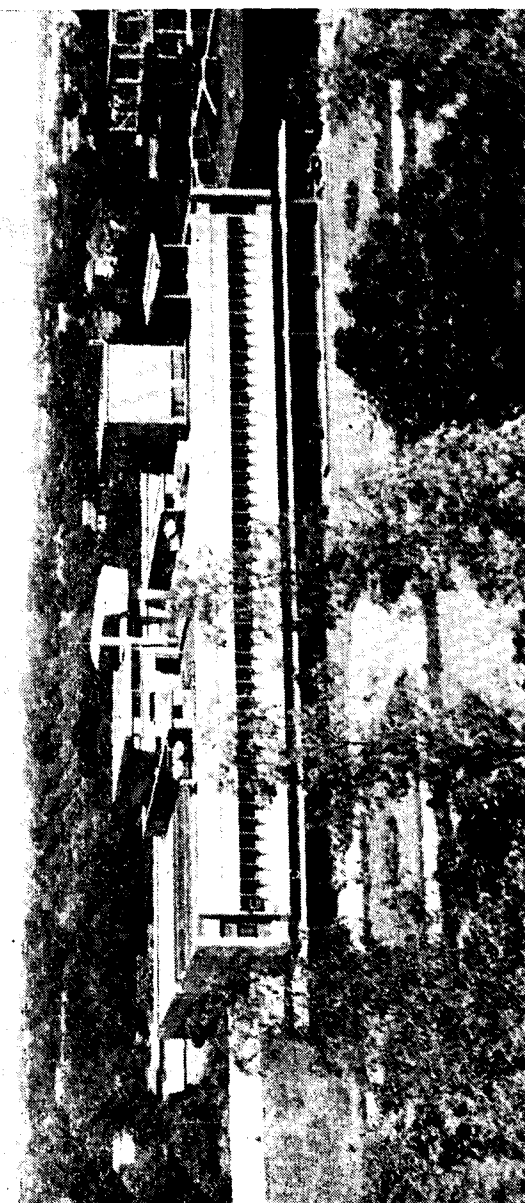
Alembic Chemical Works Co. Ltd., was started in 1907 as a small enterprise by Shri T. K. Gajjar, Prof. A. S. Kotibhaskar and Raj Mitra B. D. Amin with the idea of starting the vital Indian industry on a scientific basis. This was the nucleus out of which has grown what is now known and famed throughout India as Alembic Chemical Works Co. Ltd. With the passage of time the company gained reputation for quality products and this reputation has been steadily maintained by improvements from time to time.

The company manufactures spirits, galenical preparations, both Ayurvedic and pharmacopeal preparations, fine chemicals, etc. In 1972, it employed 3,148 persons and disbursed Rs. 2,10,24,462 as salaries and wages. It had a fixed capital of Rs. 10,09,01,900, share capital of Rs. 5,00,00,000 and paid-up capital of Rs. 3,59,92,000.

Sarabhai M. Chemicals, Vadodara

Sarabhai M. Chemicals was started in 1958 for the manufacture of pharmaceuticals and fine chemicals. It was the intention of the organisers right from the beginning not only to concentrate on the manufacture of pharmaceutical products but also to manufacture from basic raw materials some of the fine chemicals which are used in pharmaceuticals. There was a period in the last Second World War when it was extremely difficult to obtain building materials and other facilities in India. Vadodara offered the necessary facilities and, therefore, Sarabhai Chemicals was located in Vadodara on a site of 30 acres.

Alongwith the manufacturing operations of fine chemicals, Sarabhai Chemicals started a pharmaceutical manufacturing line for galenicals, standard injectables, tablets and vitamins. Later on the Directors of Sarabhai Chemicals negotiated an agreement with Messrs. E. R. Squibb



A view of Sarabhai Chemicals Ltd.
(By Courtesy—Sarabhai Chemicals, Vadodara)

New York who had established over a period of nearly 100 position of eminence in the field of pharmaceuticals and of late manufacture of antibiotics.

1973, the company had a fixed capital of Rs. 1,90,00,112 total share of Rs. 1,35,00,000 and paid up capital of Rs. 60,00,000. It provided ment to 289 persons and disbursed Rs. 51,60,000 as wages and in the same year. It produced vitamin 'C' fine chemicals, antibiotics, alued at Rs. 3,37,00,583 in 1973.

harn Chemicals Limited, Vadodara

The Baropharn Chemicals Limited was started in 1946-47. In 1972, 1 a fixed capital of Rs. 22,92,518, paid up capital of Rs. 13,12,600 and : capital of Rs. 50,00,000. In the same year it provided employment 30 persons and disbursed Rs. 4,24,037 as wages and salaries. It produced sts, capsules, injections, liquified orals, bulb, drugs, etc., valued at Rs. 25.07 is in 1973. The products were marketed all over India and exported to /lon, East-Africa and Thailand.

ve Gujarat Rubber Works Limited, Vadodara

The Gujarat Rubber Works Limited was started in 1940. It deserves ecial mention because it is only concern of its type in the district engaged e the manufacture of special articles, viz., rubber and ebonite rollers for 0 jigger padding, starch mangle squeezing, cloth and yarn mercerising machines, (ii) rubber buffers for centrifugal machines for sugar factories. (iii) endless rubber deckle straps for paper mills besides specialisation in ebonite sheets, rods, bushings and washers, printing and varnishing rollers for presses. The 'president' hard rubber combs were their speciality.

In 1972, it had fixed capital of Rs. 21,25,895 share capital of Rs. 10,00,000 and paid up capital of Rs. 3,59,375. In the same year, it provided employment to 350 persons and disbursed Rs. 7,74,895 as wages and salaries. The following table shows the production and its value in 1972-73.

Sl. No. 1	Name of products 2	Unit 3	Quantity 4	Value in Rs. 5
1	Rubber stoppers ..	.. Pes.	9,49,97,338	21,52,5 8
2	Combs ..	.. Pes	7,65,586	2,58,587
3	Other goods ..	.. Kgs	71,307	11,13,048
	Total ..	..	..	35,24,223

and Sons, New York who had established over a period of nearly 100 years a position of eminence in the field of pharmaceuticals and of late in the manufacture of antibiotics.

In 1973, the company had a fixed capital of Rs. 1,90,00,112 total share capital of Rs. 1,35,00,000 and paid up capital of Rs. 60,00,000. It provided employment to 289 persons and disbursed Rs. 51,60,000 as wages and salaries in the same year. It produced vitamin 'C' fine chemicals, antibiotics, etc., valued at Rs. 3,37,00,583 in 1973.

Baropharm Chemicals Limited, Vadodara

The Baropharm Chemicals Limited was started in 1946-47. In 1972, it had a fixed capital of Rs. 22,92,518, paid up capital of Rs. 13,12,600 and share capital of Rs. 50,00,000. In the same year it provided employment to 130 persons and disbursed Rs. 4,24,037 as wages and salaries. It produced tablets, capsules, injections, liquified orals, bulb, drugs, etc., valued at Rs. 25.07 lakhs in 1973. The products were marketed all over India and exported to Ceylon, East-Africa and Thailand.

The Gujarat Rubber Works Limited, Vadodara

The Gujarat Rubber Works Limited was started in 1940. It deserves special mention because it is only concern of its type in the district engaged in the manufacture of special articles, viz., rubber and ebonite rollers for (i) jigger padding, starch mangle squeezing, cloth and yarn Mercerising machines, (ii) rubber buffers for centrifugal machines for sugar factories, (iii) endless rubber deckle straps for paper mills besides specialisation in ebonite sheets, rods, bushings and washers, printing and varnishing rollers for presses. The 'president' hard rubber combs were their speciality.

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Sl. No. 1	Name of products 2	Unit 3	Quantity 4	Value in Rs. 5
1	Rubber stoppers ..	.. Pes.	9,49,97,338	21,52,5' 8
2	Combs ..	.. Pes	7,65,586	2,58,587
3	Other goods ..	.. Kgs	71,307	11,13,048
	Total ..	..	..	35,24,223

The foregoing table shows that the factory produced rubber-stoppers, combs and other goods valued at Rs. 35,24,223 in the year 1972-73. The products have been marketed all over India and exported to Middle East Countries.

The Baroda Rolling Mills Private Limited, Vadodara

The Baroda Rolling Mills Private Limited was started in the year 1943. In 1972, it had a fixed capital of Rs. 7,63,049, paid up capital of Rs. 3,00,000 and share capital of Rs. 10,00,000. In the same year, it provided employment to 55 persons and other daily workers and disbursed Rs. 8,93,012 as wages and salaries. It had produced cast-iron pipes, sluice valve and machine parts valued at Rs. 10,30,440 in 1972. The products are marketed all over India.

Tensile Steel Limited, Vadodara

The Tensile Steel Limited was started in 1963. Products manufactured by the Company were imported by the Government as there were no facilities in the country. Moreover the production technique required specialised know-how. Considering this aspect the company envisaged a project to manufacture the product in collaboration with well-known Japanese firms in this line of trade. Initially the Company suffered set-backs on account of recession suffered by entire engineering industry, paucity of raw materials-imported and locally available, consumer resistance on account of high cost because of uneconomic size of operations, etc. Towards the end of 1969, the market conditions improved and the demand has also increased considerably.

In 1973, it had a fixed capital of Rs. 149.09 lakhs, share capital of Rs. 145 lakhs. In the same year, it had provided employment to 239 persons and disbursed Rs. 18.18 lakhs as wages and salaries. It had produced iron, steel and carbon steel wires valued at Rs. 652.68 lakhs.

Universal Dyestuff Industries Limited, Sakarda, Ranoli

This unit was started in 1960. In 1973-74, it had fixed capital of Rs. 2,21,07,383 share capital of Rs. 1,75,00,000 paid-up capital of Rs. 37,50,000 and employed 193 persons. In the same year, it disbursed Rs. 4,90,116 as wages and salaries. It produced vat dyes valued at Rs. 70,45,000 and bye-product of dyes inter-mediate valued at Rs. 25,55,000. The products are marketed all over India and exported to Nepal and Bangla Desh.

Ashwin Industries, Samlaya

This unit was started in 1961. In 1973-74 it had fixed capital of Rs. 52,95,148 and employed 178 persons. In the same year it disbursed

Rs. 2,45,000 as wages and salaries. It produced 4,227 tonnes of Vanaspati ghee, 296 tonnes of refined oil and 172 tonnes of soap in 1973-74. The products are marketed all over Gujarat and exported to Hungary.

Shri Yamuna Mills Company Limited, Vadodara

The Yamuna mills was started in 1923. In 1973 it had a fixed capital of Rs. 41,51,467 and employed 2,000 persons. In the same year, it disbursed Rs. 83,22,203 as wages and salaries. It produced *dhoti*, *saree*, bed-sheets, long cloth, shirting, etc., valued at Rs. 3,19,76,788 and bye-products of soft-west, hard west, etc., valued at Rs. 63,88,08. The products are sent to Ahmadabad, Bombay, Bihar, Bengal, Orissa and Amritsar and also exported abroad.

Shri Dinesh Mills Limited, Vadodara

This mills was started in 1935 during the time of Baroda State. At that time only woollen goods were produced. During the time of ex-Baroda State and during World War II, it was fully engaged in manufacture of blankets for the Government of India. In 1967, machineries were installed to produce felt (paper for machines). In 1973, it had fixed capital of Rs. 3,88,78,300, share capital of Rs. 70,00,000 and paid-up capital of Rs. 40,00,000. In the same year it provided employment to 1,344 persons and disbursed Rs. 66,77,494 as wages and salaries. It produced 9,42,196 metres clothes, 105 metric tonnes felt (paper for machines) and 16,381 kgs. yarn valued at Rs. 5,12,16,571. The products are marketed all over India and are also exported abroad.

Varnama Group Co-operative Cotton Sale Ginning and Pressing Society Limited, Varnama

The Co-operative Society Limited was started in 1956. It had a fixed capital of Rs. 8,42,892, paid-up capital of Rs. 1,31,510 and share capital of Rs. 4,00,000 in 1972-73. In the same year it provided employment to 11 persons and disbursed Rs. 65,134 as wages and salaries. It ginned and pressed cotton and cotton seeds amounting to the value of Rs. 46,90,769.

Khedut Sahakari Ginning and Pressing Society Ltd; Itola

This unit was started in 1946. It is engaged in cotton ginning and pressing. It had a fixed capital of Rs. 9,58,592, paid-up capital of Rs. 1,49,900 and share capital of Rs. 3,00,000 in 1972-73. In the same year, it provided employment to 200 persons and disbursed Rs. 2,31,601 as wages and salaries. It ginned and pressed cotton and cotton seeds amounting to the value of Rs. 2,23,35,412.

The Sankheda Jabugam Taluka Ginning, Pressing and Cotton Sale Co-operative Limited, Bodeli

This co-operative society was started in 1957. It had a fixed capital of Rs. 3,98,621, paid up capital of Rs. 1,35,900 and share capital of Rs. 5,00,000 in 1972-73. In the same year, it provided employment to 265 persons and disbursed Rs. 1,70,160 as wages and salaries. It is engaged in cotton sale, ginning and pressing.

SMALL SCALE AND COTTAGE INDUSTRIES

Since complete data regarding the distribution of small scale and cottage industries in the district are not available, the results of the survey carried out by the Bureau of Economics and Statistics Gujarat are summarised below, as they indicate the stage of development in this sector of industry. The survey was undertaken in all the districts of State except the Dangs and was spread over two years, 1959-60 and 1960-61. It aimed at (i) obtaining districtwise estimates of income of families in selected cottage and small scale industries, and (ii) collecting information on other related aspects such as employment, production and consumption of raw materials.

An 'establishment' was classified as cottage industry, if the number of persons engaged in it on any day during the year was 9 or less. If the number was 10 or more and the unit was not registered under the Factories Act, the establishment was classified as small scale establishment whether it was power operated or not. Ordinary industrial units employing 10 or more workers and using power should be registered under the Factories Act. However, if at the time of the inquiry, such a unit was not registered, it was included in the survey¹.

The survey carried out was a sample survey covering the following sixteen industries in the cottage and small scale sector (i) weaving, (2) dyeing and printing, (3) jari thread works, (4) blacksmithy, (5) metal works, (6) carpentry, (7) cane and bamboo products, (8) bricks and tiles, (9) other potteries, (10) leather working and tanning, (11) oil pressing, (12) gur making, (13) bee keeping, (14) soap making, (15) match making and (16) paddy husking.

For the purpose of survey the centres were classified into strata A, B and C. Stratum 'A' was related to the centres important for different industries. Stratum 'B' to urban areas other than those covered by 'A' and Stratum 'C' consisted of groups of 4 to 5 villages in the rest of the rural

1. *Quarterly Bulletin of Economics and Statistics*, Vol. II No. 1, January-March, (1962).

areas from which about 4 per cent of the group villages were selected for the purpose of survey.

Distribution of Establishments by Industry

There were in all 3,886 establishments in the 16 industries surveyed in the district out of which 3,877 (99.8 per cent) were in the cottage sector and only 9 (0.2 per cent) were in the small scale sector.

Power Vs. No Power

Out of 3,877 cottage establishments, 89 (2.3 per cent) were operated with power and 3,788 (97.7 per cent) were operated without power.

Employment

The total number of persons employed as shown in the Statements V-5 and V-6 and given at the end of the chapter indicate that in both the sectors in the district there were 9,363 persons, out of whom 8,373 (89.6 per cent) were household persons and 990 (10.4 per cent) were outsiders. Taking the number of establishments into consideration, it would be observed that important industries were black smithy, other metals, carpentry, other potteries and leather working and tanning.

Small Industries in Unorganised Sector in Urban Areas

The Bureau of Economics and Statistics carried out in 1969-70, the listing survey of small industries¹ in the unorganised sector of the urban areas of the district under the centrally sponsored scheme which was included in Fourth Five Year Plan.

An industrial unit was defined as any unit engaged in production (other than agriculture), processing, repairs and industrial servicing. The units rendering personal services were excluded (e. g., laundries, hotels, dispensaries, etc.)

The units were further classified as units using power and units not using power. The unit was considered to be using power if any kind of motive power was used directly or indirectly in the process of production. The data in the district were collected from the following 9 urban centres, viz., (1) Bahadarpur (2) Vadodara (3) Chhota Udepur (4) Dabhoi (5) Gorva (6) Karjan (7) Padra (8) Sankheda and (9) Sinor.

1 Units not registered under the Factories Act of 1948.

From the Statement V.7 given at the end of the Chapter, it would be observed that there were 326 industrial units employing 5 or more workers in the district providing employment to 2,298 persons. Of the 326 units, 197 were found using power, while 129 were not using power. Of the 326 units 201 were organised by proprietorship, 120 by partnership, 4 by co-operative society and 1 by other.

Both from the view point of employment and number, it may be noted that following units deserve mention, viz., manufacture of metal products except machinery and transport equipment; manufacture of machinery except electrical machinery, manufacture of wearing apparel (except foot-wear), printing, publishing and allied industries, manufacture of glass and glass products and spinning, weaving and finishing of textiles.

INDUSTRIAL ESTATES

The concept of development of industrial estates in India took shape at the end of First Five Year Plan. The main object of development of industrial estates is to accord requisite facilities for the development of small scale industries whereby entrepreneurs with small means can obtain built-up sheds or developed plots with all facilities of roads, water supply, drainage and electric power. In Vadodara district the following industrial estates have come up.

(1) An Industrial Estate at Vadodara has been started at Gorva road by the Gujarat Industrial Development Corporation. This estate covers an area of 14 hectares. In all 81 sheds have been constructed. There were 56 factories employing 1,600 persons. The estate is developing fast.

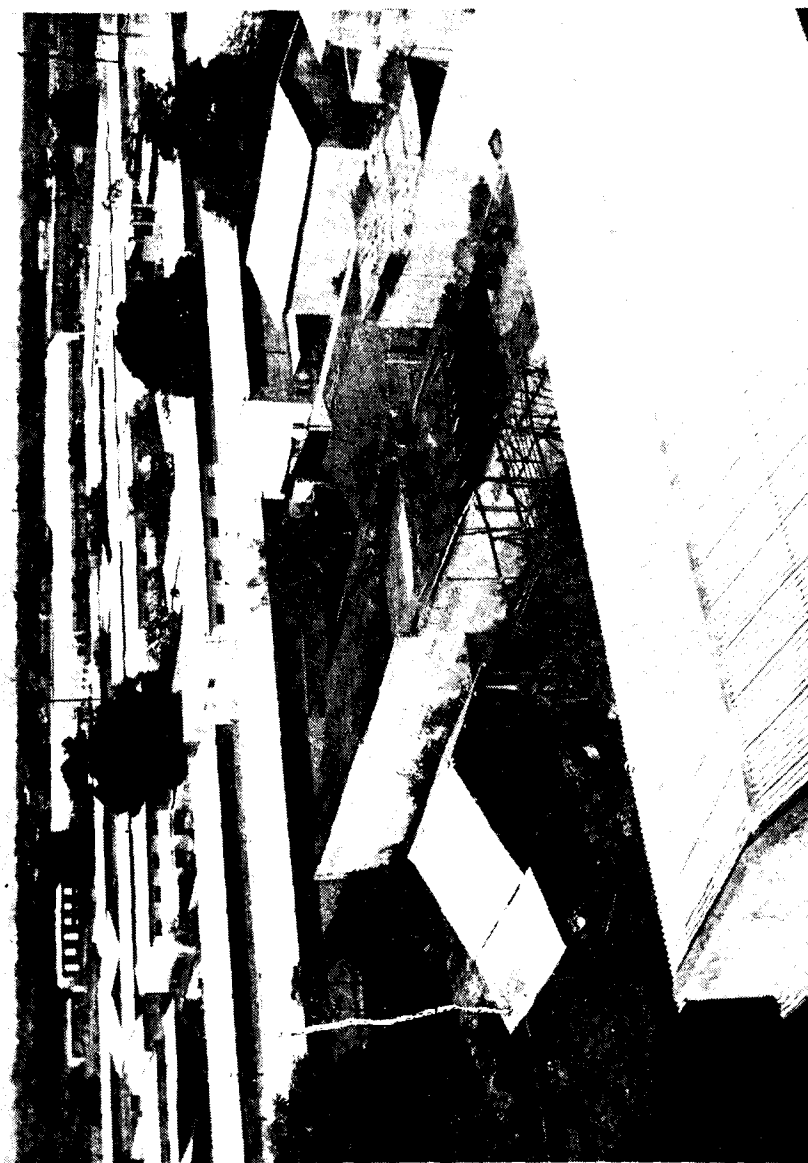
(2) The industrial estate has been established on the co-operative basis at Vadodara. It covers an area of 37 hectares. In all 106 sheds are to be constructed. Some of the constructed sheds have already been allotted.

(3) The Gujarat Industrial Development Corporation has constructed two industrial estates called Makarpura Industrial Estate and Nandesari Industrial Estate in the vicinity of Vadodara. These estates have developed on considerable scale. Their detailed description is given below.

Makarpura Industrial Estate

Makarpura Industrial area is on the outskirts of Vadodara city located between the national highway No. 8 and the railway line.

This estate is developing very fast owing to its locational advantage of proximity to the city. The Vadodara Municipal Corporation and the Gujarat Industrial Development Corporation are jointly developing it.



A view of Industrial Estate

The total area in possession of the estate till October 1974 was 308 hectares. The target is to acquire 362 hectares when phase three of the development of the estate will be over. The total number of plots to be disposed during the first and second phases is 486, of which 243 have been allotted and 223 are utilised for sales. The remaining 21 plots are also committed to prospective entrepreneurs. The pace of construction and allotment of industrial phase also has kept up momentum. This is evident from the fact that till October 1974, of the total 444 sheds 223 were completed and allotted. Remaining 221 were on way to completion. Of these plots also 110 have been allotted. So far 210 factories have gone into production manufacturing mainly plastics, engineering goods, chemicals and miscellaneous goods.

The number of factories which have gone into production and workers employed therein are as under :

Type	No. of Units	Total No. of workers
Engineering	48	631
Plastics	9	189
Chemicals	12	170
Others	31	210
Total	100	1280

The approximate value of products manufactured in these units is Rs. 2.87 crores.

Two large units are being set up in this area by Bundy Tubing of India Ltd., and Murphy Radio. A decision has also been taken to set up functional electronics estate in this area.

Nandesari Industrial Area

Nandesari Industrial Area was established in the year 1967. This estate is located at a distance of 16 km. from Vadodara and it is on Ahmadabad-Bombay Broadgauge Railway line. In all 300 hectares of land has been put under acquisition. Out of this till now possession of 244 hectares of land has been obtained. This estate is meant for industries which are based on Products of Indian Petro-Chemicals Complex. The land for the industrial use is allotted for 99 years on lease and all facilities such as roads, drainage, power as well as street lights are provided by Gujarat Industrial Development Corporation. The premium price for land is Rs. 15 per sq. mt.

which is inclusive of land, road, water supply and power supply, etc. The power and water lines are laid up to the corner of the plot and the internal wire connection is to be done by the plot and shed holders.

The total sum is to be paid over a period of 10 years with an interest at the rate of 14 per cent in 40 equated quarterly instalments. In this area 37 sheds of different types have been constructed and allotted to the various parties for chemical, engineering and plastic industries. The Gujarat Industrial Development Corporation has created amenities such as post offices, telephone exchange, banking facilities, shopping centres and canteen for the entire Industrial Area. Moreover Gujarat Industrial Development Corporation has constructed 6 'A' type, 10 'B' type and 48 'C' type quarters for providing residential accommodation to the supervisory staff as well as for workers. A plot has been allotted to Gujarat Housing Board to construct more residential quarters. In all 37 sheds have been constructed of which 35 are occupied. Two sheds are used as godown and office.

In 'Baroda Crystal Glass factory' premises, a new estate has sprung up under the name of Patel Industries Estate and more than two dozen units are producing engineering goods and different chemicals. Another small industrial estate is functioning near Yamuna Mill, under the name of Parekh Estate.

One new industrial estate is coming up at Ajwa Road, under the name of Sardar Patel Co-operative Industrial Estate. Some 243 units will start manufacturing activity in small scale sector. About 2,000 persons will get employment and it is expected to produce goods worth two crore of rupees per month.

The other industrial estates of lesser importance are the Vijay Udyog Industrial Estate at Padra Road, and A. I. P. Estate.

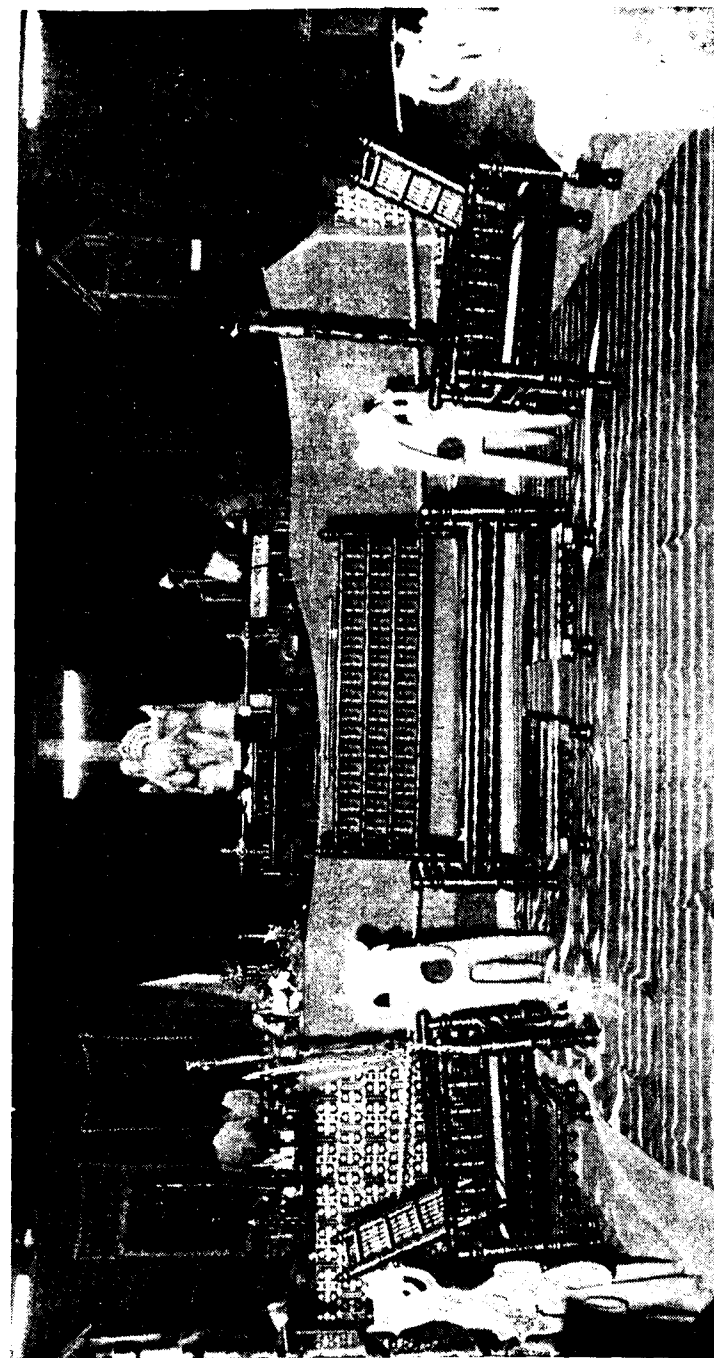
INDUSTRIAL ARTS

Transparent Lacquer Work

Introduction—Lacquer work is an art of the turner or *Kharadi* found in every town of Gujarat, making bed posts, bed legs, toys, tops, sticks, fruits, cradles and various other articles of domestic use. The articles are made into

1. The write-up is based on :

- (i) Survey conducted by Gazetteers Office.
- (ii) Census of India 1961, Vol. V, Part VII A, *Transparent Lacquer Work of Sankheda*, (1968).



Lacquer work of Sankheda

the required shape by turning on the lathe, whereafter they are coloured by pressing sticks of colour to the revolving surface, according to the design and effect sought to be produced. The design painted with tin attains extreme richness under the transparent layer of lacquer. In Gujarat lacquer work has acquired special importance at Sankheda in this district, where a special technique lacquetry in transparent colours has been evolved through the use of a liquid solution of tin. This craft is the noteworthy activity of the people of the town of Sankheda since very old times.

In order to study the craft a representative survey was conducted by Gazetteers Office at Vadodara city and in town of Sankheda. The individual artisans were contacted and the information on all the aspects of the craft was elicited from them.

History of the Craft

The origin of this industrial art at Sankheda is not definitely known. But according to a local legend, the Suthars who migrated to Sankheda from the old citadel of Champaner as a result of its conquest by Muslims started lac-turnery alongwith carpentry. This art thus came into existence at this centre probably before 500 years. In the former days the lac-turned articles were not transparent which is a later improvement in the technique. The transparent lacquer work in Sankheda according to knowledge of leading artisans was learnt by two *Kharadis*, viz., Late Premjibhai Pancholi and Mohanlal Pancholi, the grandfathers of Kanchanlal Jetharam and Amritlal Mohanlal respectively. It is said that both Premjibhai and Mohanlal used to visit Vadodara for buying the raw materials required in the craft and for obtaining orders for their finished products. Once upon a time during such a visit they found a Muslim artisan applying tin paints upon an egg and applying lac over it for giving a gloss to the design. He used to present this artware to kings and thus earned prizes which were his only source of livelihood. This aroused keen interest and curiosity among them. They began to watch secretly the performance of the artisan and requested him to teach the art. The Muslim artisan who was not teaching his art to anybody including his son agreed to their request and taught the art. Both the *Kharadi* artisans practised in secret this art on the first floor of their houses without disclosing it even to their family members.

According to another legend about the origin of the present technique of the craft, about a hundred years ago, Ichharam Pragji, a *Kharadi* of Vadodara, had attended upon a saint during his sickness. Pleased by his devotional hospitality, the sage blessed him in return by teaching him the secret art of polishing with lac. Sage in India used to move from place to place throughout the country for religious discourses and preaching, which

made them conversant with the ways of living of the people in different regions. It is quite likely that the saint might have observed the application of tinfoils somewhere and taught the same to Ichharam.

The then ruler of the Vadodara State in past patronised the craftsmanship of these artisans by exporting the lacquerware prepared by them to European countries and offering them land and other temptations in the form of presents. The art presented so much an enigma that Swiss, Japanese and Americans tried to investigate into the chemical composition of the varnish without any success.

The art of lac-turnery practised at Sankheda has a peculiarity of its own and differs from the ordinary lac application on wooden articles manufactured at other centres like Jamnagar, Rajkot, Mahuva, Bhavnagar, Junagadh and Dhoraji in the State. This art of tinfoil application underneath the lacquer coating which produced ruby appearance and transparency of lac remained their guarded secret and only a few families were engaged in it in the past.

Type of Units

Almost all the establishments engaged in the craft are independent units undertaking production and sale of finished products on their own. Each family is an independent unit of production working with the assistance of family members only. The finished products are sold directly to the traders, individual customers or to the co-operative society. All the *Kharadi* artisans are now covered under the co-operative society organised on 23rd November, 1962. The society at present is dormant.

Caste and Community

The artisans engaged in this craft at Sankheda are known as *Kharadis* and the locality where they stay as *Kharadi Vago*. At Vadodara there is a *Kharadivad* near Nyaya Mandir. In all 50 families reside at Sankheda and 12 at Vadodara. All the *Kharadi* families belong to Pancholi sect of Hindu Suthars. According to their own account they have migrated before 500 years from Champaner, a well-planned and rich town of that time.

Raw Materials

Artisans purchase the raw materials on cash or on credit basis. Credit involves payment of higher prices. The system of working on piecework basis for the master craftsmen supplying the raw materials and getting back the finished products is not in vogue. The artisans work on their own. On

account of their average economic condition, the ability of the craftsmen to invest in raw materials is highly circumscribed. They, therefore, make their purchases in quantities as and when required.

Besides the basic raw materials like teak wood and lac, the subsidiary materials required are colours, *kevda* leaves, sandpaper, tin, agate-stone, brass wires, glue, groundnut oil, coal, etc. etc.

Tools and Technique

Tools and Implements—The tools and equipments utilised in the craft are ordinary carpentry tools and a crude wooden lathe with ancillary appliances for turning. All these are simple, hand-operated, traditional tools and implements and no change has been noticed therein. Most of the tools are manufactured by the local carpenter or blacksmith or locally purchased, and so the artisans have not to go outside Sankheda for getting them. The chief tools required are the hand-operated lathe, and cutting tools like saw, adze, plane, hammer, drill, etc.

Technique—The lac-turnery practised at this centre is unique as rich effect is produced by tinfoil ornamentation under transparent lac coatings. In this art of lac-turnery utmost care is taken by the artisan at all stages of production. The technique is practised in three parts, viz., (i) preparation of coloured *battis*, (ii) making *harkalai* (iii) wood turning and ornamentation.

Finished Products—The position has partially changed today when the artisans manufacture a large number of various types of articles of household furniture, for decoration and domestic use, besides traditional articles which still command a market due to the continuance of certain social customs. The market orbit has now widened as finished products are marketed in distant places of the country. During the course of survey, it was observed that articles were exported to Japan, U. S. A. and U. K. The furniture of Rajbhavan at Ahmadabad is also made in Sankheda style by an artisan of Sankheda. The main items produced are sofa-sets of different sizes, lacquered cupboards, swing with glass and tiles, cradles with stand of various sizes, designs and shapes, cots with shade (poles for tying mosquito net) or with side railing, wooden seats, flower-vases, powder bowls, teapots, tea-trays, toys, table-lamps, flower-pots, *velan* or *dandia*, mirror box, bangle stand, photo frames, etc. The designs commonly drawn on all types of lacquered wares are *jali* or double *jali*, *athada* or double *athada*, *minda*, *chokdi*, flowers, *vel* or *ful-vel*, *tranpankhadi*, *kakkavali*, *laher*, human and animal figures, etc. It is assessed that annually articles worth Rs. 1 to 1.50 lakhs are manufactured. The prices of the articles vary according to workmanship, richness in design, etc. The table given below indicates the prices of the articles.

Prices of Finished Articles, 1974

Sl. No. 1	Articles 2	Unit 3	Rs. 4
1	Two modern chairs and sofa		
	(i) Ahmadabadi sofa 18"×50",	One	1,200-00
	(ii) Modern sofa (fitted with bolt) 18"×50", 18"×18" ..	"	1,000 00
	(iii) Easy-chair (rocking) 18"×50", 18"×18" ..	"	200-00
	(iv) Low chairs and sofa 18"×50", 18"×18" ..	"	900-00
	(v) Modern (Lakadivala) sofa set 18"×50", 18"×18" ..	"	800-00
2	Lacquered cupboard with picture 60" height/36" breadth depth 15" ..	One	800-00
3	Dressing table 18"×30" ..	"	900-00
4	Swing with glass and tiles 54"×24" ..	"	750-00
5	(i) Cot with shade and side railing ..	"	300-00
	(ii) Cot with shade and side railing ..	"	700-00
6	Cradle or inary ..	"	200-00
	with stand ..	"	700-00
7	Wooden seat (Bajoth) ..	"	85-00
8	Teapoy round (1' X 1½' X 18") ..	"	75-00
9	Teapoy square (15" X 15" X 1") ..	"	85-00
10	Teapoy (three legs) 2½' X 1½' X 1½' ..	"	90-00
11	Tray ..	"	20-00
12	Tray with glass top ..	"	22-00
13	Rolling pin thick (Velan) ..	Dozen	12-00
14	Wooden mortar for powdering chillies ..	One	22-00
15	Wooden pestle ..	"	20-00
16	Table lamp ..	"	12-00
17	Cradles as an article of worship ..	"	15-00
18	Baghandle simple ..	"	7-00
19	Gilli danda ..	Dozen	25-00
20	Chamri dandi ..	"	20-00
21	Flower-pot height 6"—depth 2" ..	Pair	15-00
	height 8"—depth 4½" ..	"	to
	height 9"—depth 2½" ..	"	60-00

Prices of Finished Articles, 1974—contd.

Sl. No. 1	Articles 2	Unit 3	Rs. 4
22	Bangle stand ..	One	5-00
23	Kumkum holders ..	"	4-00
24	Hair oil cup ..	"	4-00
25	Powder box ..	"	15-00
26	Agarbatti stand big size ..	"	7-00
	small size ..	"	2-00
27	Paper weight ..	Pair	00
28	Dandia for ras ..	Pair	2-50
29	Long walking sticks 3½' length ..	One	10-00
30	Dish 6", 8", 9", 10", and 12" ..	"	15-00 to 25-00
31	Perambulator (Chalungadi) ..	"	25 to 50

Economic Characteristics

Wage Structure—Almost all the units are working independently with the help of their family members only. Whatever they earn may be considered the remuneration of their labour including profit. For the preparation of 1 kg. of harkalui, 4 man days are required. An artisan engaged in craft earns Rs. 6 to 12 per day. In case of articles like sofase's, cradles etc., the artisan earns more i. e., Rs. 7 to 15 per day, while in case of simple articles like toys, *velan*, etc., his earning come to Rs. 5 to 6 per day. No piece wages are generally paid except for sawing timber and for joining the parts of the furniture. Persons associated with sawing of timber are from Baria and Tadvi communities known as *verania*.

The annual income of the artisan at Sankheda varied from Rs. 7,000 to Rs. 25,000. At Vadodara it varied from Rs. 3,500 to Rs. 9,000. A national award for master craftsmen was given to Shri Himatlal Mohanlal Kharadi on 25th January, 1967 by the Government of India, New Delhi,

Artisans work for 8 hours or more in peak season, and 6 hours in a slack season. The months of Ashvin to Jyestha which roughly correspond to November to June are the busy months both for production and sale, whereas the monsoon months from Ashadh to Aso or Ashvin which correspond to July to October are generally slack. The total number of working days during the busy season is 195 and 104 in slack season. Work is closed

on Monday as weekly off. Artisans celebrate festivals like Vishvakarma Jayanti, Hanuman Jayanti, Holi, Divali, Dassera, etc., and stop work on these days also.

INDUSTRIAL POTENTIAL AND PLAN FOR FUTURE DEVELOPMENT

In formulating any programme for industrial development for the future, it is desirable to review first the achievements recorded in the past. In the preceding section detailed information has been given about the progress of industrial development that has taken place in the district. The degree and status of industrialisation of a district can be judged by a number of indicators. The ones generally looked for are, (1) employment opportunities provided by industry, (2) number of industrial establishments, their composition and their dispersal within the district, (3) investment climate for future industrialisation in the district, (4) interest shown by Government in setting up industries under the public sector and/or in participation in private sector ventures and (5) effects of industrialisation on the tertiary sector, *i. e.*, services and trade. Looking to the above mentioned indicators, it would be observed that the Vadodara district is highly industrialised, in State of Gujarat. This is evident from the detailed analysis of trends of industrial development, results of Annual Survey of Industries and development of large scale industries. The data analysed in the indicators confirm that district has developed according to the indicators shown above. However, yet the district offers considerable scope for the development of a number of industries. The following analysis would show the development possibilities of various industries in the district. The analysis also indicates the directions in which the industrial development has taken place.

Growth of some Agro-based Industries

In the process of economic development, activities based on primary sector of the economy get momentum. It leads to further development in secondary sector, in Vadodara district, agriculture being a leading primary sector activity, it has provided opportunities for many agro-based industries. These industries involve less sophisticated techniques. Moreover, they seldom require large investments and being labour intensive, they can be easily developed. The industries processing agricultural products like oil seeds, rice, grain therefore need attention. Some of the important industries which can be developed in the sphere of agro-based industries are : (1) hydrogenated oil, (2) tobacco processing, (3) utilisation of waste for manufacture of nicotine sulphur (4) manufacture of activated carbon, dehydration and canning, and (5) solvent extraction of oil seeds and cakes.

The district also offers considerable scope to the growth of cotton textiles in view of cultivation of cotton in this district and adjoining district of Bharuch.



Fluorspar factory, Amba Dungar near Chhota Udepur

Mineral-based Industries

Following are the minerals which can be successfully exploited for the purposes of industrial development in the district, viz., fluorspar, dolomite and graphite.

Fluorspar is used in the chemical industry to make hydro-chloric acid, artificial cryolite and fluorocarbons. It is also used in pickling of stainless steel, petroleum alkylation and water fluoridation. Further it has an important use in the production of the enriched atomic fuel and the ore has also been used as rocket fuel in the United States. The development of this ore will help to set up various industries in the State. Deposits in the district are enough to meet our domestic requirements and it is felt that it will be possible to export part of the ore for which there is great demands abroad. Associated with fluorspar at Ambadungar are rare metals like beryllium, niobium, zirconium, and thorium, the presence of which has been confirmed by the delicate analysis. The economic evaluation of these elements will be undertaken at a later date when the production of fluorspar from the plant is stabilised.

Dolomite which is available for commercial exploitation can be used in the production of fertilizers. In Chhota Udepur taluka, thick and continuous strata of the minerals are found near Surkheda, Ambala, Chathawada, Dadigam and Bedvi villages. Dolomitic limestone chips which are known as BU Chips are used for manufacturing mosaic tiles. There are about 23 mines of dolomite in Chhota Udepur taluka employing more than 1,500 Adivasi labourers. The average yearly production of dolomite exceeds 1 lakh tonnes valued at Rs. 9 lakhs. The State derives a royalty of more than Rs. 1 lakh as a result of dolomite production.

Graphite is available in Jabugam taluka around the villages of Muthai, Kundal, Jaloda, Khajuri and Chaina. There is a plant for beneficiation of graphite at Pavi-Jetpur which is incidentally the taluka headquarters. Green marble stones available near Chhunchhapura village of Sankheda taluka are used for decorative purpose in building construction works. There are six mines in the district employing about 125 persons and there is scope for further development of marble quarries. Sandstones found near Songir village of Sankheda taluka is useful for construction and railways. About 175 labourers are employed for the production of sandstones in this area.

Minerals like soapstones, quartz, managanes, granite, gravel and trap are available in smaller quantities and commercial exploitation of these minor products is not economical at present.

Looking to the prospects of future development of certain areas in the district for their mineral deposits it is worthwhile to cover the district fully by geological and mineral surveys. Latest methods and techniques to

locate the hidden ore deposits should be employed for the purpose. Besides aerial surveys with magnetometers and other probes to locate anomaly zones, ground checking and drillings may provide the much needed information about the promising region full of mineral deposits in the area. The increased employment potential in the rural and backward areas of Chhota Udepur taluka due to the availability of different mineral is a noteworthy feature of Vadodara district. The mineral map shows that major minerals have been found in the district.

Engineering Industries

The index of industrial development is judged normally from the development of engineering industry which is considered to be the basic industry for the sound industrial structure in the district. Engineering industry has developed substantially. Following industries have gained firm ground in the district. Manufacture of tractors and bulldozers has started and established themselves at Vadodara. A large unit with modern equipments has also been established for the manufacture of modern steel furniture. The district is suitable for the development of industrial plants and machinery, the electric metres, transformers, controlled switch gears, machine tools, structural workshops, manufacture of railway wagons, agricultural equipments and scientific instruments. The table given below shows the number of industries which can be established in the district.

List of Industries which have Potentialities for Development in Vadodara District

- | | |
|---------------------------------|---|
| 1. Cattle Feed | 20. Synthetic Fibers |
| 2. Poultry Feed | 21. Varnish |
| 3. Filtration | 22. Synthetic Rubber |
| 4. Distillation | 23. Proteins |
| 5. Automobile Engineering Works | 24. Petrochemical-based Industries |
| 6. Spares | 25. Spectacle Glass-Frames |
| 7. Electrical Accessories | 26. Electronics |
| 8. Motors | 27. Spinning Mills |
| 9. Transformers | 28. Canning Industry |
| 10. Switchgears | 29. Cold Storage |
| 11. Foundry | 30. Starch Mill |
| 12. Wood Works | 31. Oil Engine |
| 13. Tiles and Cement Pipes | 32. Electric Motors and Tractors Repairing Workshop |
| 14. Plastic Moulding | 33. Paper Industry |
| 15. Agricultural Implements | 34. Chip Board |
| 16. Cottonseed Oil Mill | 35. Particle Board |
| 17. Machine Tools | 36. Straw Board |
| 18. Plastic Machinery | 37. Gum |
| 19. Plastic | |

LABOUR AND EMPLOYERS' ORGANISATIONS

Labour Organisations

The important objective of the labour organisations is to secure better conditions of work, payment of real wages and improvement of the economic and social conditions of labour as whole. The trade union movement signifies a collective effort on the part of labourers to increase their bargaining power in the labour market and thereby improve their social and economic conditions. The growth and functions of trade unions have mostly been determined by the political and economic development of the country. During the time of Baroda State only textile workers of the State were organised in trade unions. In Baroda one union existed with a total membership of 24741. It may be pointed out that in the district, there are many unions with large number of followers and of long standing reputation.

The table given below shows the names and memberships of the important unions in the district in 1972.

Sl. No.	Name of the Union	No. of members
1	2	3
1	Majoor Mahajan Mandal	5,579
2	Oil and Natural Gas Commission Employees Mazdoor Sabha	3,550
3	Central Bank Employees Union	493
4	Baroda City Municipal Servants Union	905
5	Baroda Jilla Khot Majoor Panchayat	811
6	Baroda Majdoor Sabha	1,190
7	The Chemical Majdoor Sabha	2,656
8	Gujarat Pradesh Bank Karmachari Sangh	772
9	Gujarat Refinery Kamdar Sangh	641
10	Gujarat State Fertilizers Employees Union	1,021
11	Baroda Engineering Kamdar Mandal	1,870
12	Gujarat Electricity Majdoor Sabha	905
13	State Transport Workers Union	2,633
14	All India Hindustan Brown Bowery Employees Federation	N. A.

1. Baroda Administration Report, 1944-45, p. 147.

The table given below shows the progress of labour unions in the district.

Sl. No. 1	Year 2					No. of members 4
				Number of Unions 3		
1	1960-61	..	..	..	54	17,595
2	1961-62	..	..	..	48	11,723
3	1962-63	..	..	..	59	16,927
4	1963-64	..	..	..	57	19,476
5	1966	..	..	..	62	22,659
6	1967	..	..	..	62	23,054
7	1968	..	..	..	60	20,107
8	1969	..	..	..	64	26,576
7	1970	..	..	..	58	33,581
10	1971	..	..	..	67	38,468
11	1972	..	..	..	69	42,543

The foregoing table shows that in 1960-61, there were 54 unions with a membership of 17,595 while in 1972 there were 69 unions with membership of 42,543.

The following table shows the industry-wise classification of the unions in 1972.

Sl. No. 1	Industry 2					No. of Unions 3
1	Agriculture, hunting, forestry and fishing	..	..	..	..	3
2	Mining and quarrying	..	..	..	..	3
3	Manufacturing	..	..	..	..	28
4	Electricity, gas and water	..	..	..	..	2
5	Construction	..	..	..	..	..
6	Wholesale and retail trade and restaurants and hotels	..	..	..	..	3
7	Transport, storage and communications	..	..	..	..	2
8	Financing, insurance, real estate and business services	..	..	..	..	2
9	Community, social and personal services	..	..	..	..	17
10	Activities not adequately defined	..	..	..	..	9
	Total	..	..	..	..	69

There were 69 unions in 1972, out of which manufacturing industries claimed the highest number of unions (28), and community, social and personal services claimed in all 17. The rest were accounted for by other industries.

Employers' Organisations

In the district there are two important Employers' Organisations, viz., (i) the Federation of Gujarat Mills and Industries and (ii) the Textile and Allied Industries Research Organisation.

(i) *The Federation of Gujarat Mills and Industries, Vadodara*—This federation was started on 22nd June, 1918. It has been in the fore of the service of industries in Gujarat for half a century. It promotes the development of industries in Gujarat and in particular of Vadodara.

On the 25th April, 1918 an association of textile mills, christened as the Baroda Millowners' Association, was brought into being at the instance of the then Vadodara State Government with the object of devising ways and means to overcome the various problems facing the textile industry and some other industries in the State of Baroda. In course of time more and more industries, other than textile mills, started feeling the need of associating themselves with a representative body to find an effective solution to their problems. The Baroda Millowners' Association immediately came forward and agreed to cater to their needs and accept them as members. Therefore in 1936 the Baroda Millowners' Association became the Federation of Baroda State Mills and Industries.

In 1974, the Federation commenced a membership of 196 units from Vadodara district, covering various types of industries such as cotton and woollen textiles, engineering, pharmaceuticals, chemicals, glass and oil, rice, pulse and roller flour mills.

There is Federation of Small Scale and Cottage Industries and in 1974 it had membership of 352 units from Vadodara district.

(ii) *The Textile and Allied Industries Research Organisation, Vadodara*—This organisation was established on 24th December, 1953, for research in the field of textile engineering in collaboration with the M. S. University of Baroda. "Tairo" is the well-known abbreviation for the organisation.

Tairo came into existence as an independent body with the support of the textile mills of the area and efforts of the Federation of Gujarat Mills and Industries, Vadodara soon after the Textile Engineering degree course was

started in the M. S. University. Tairo has at present 30 members, out of which 13 are textile machinery manufacturing concerns, 12 cotton textile mills, 1 woollen mill and 1 Rayon unit and 1 co-operative cotton ginning company and two associations.

Its main activities are to encourage the import substitution and save foreign exchange by way of production of such items as are required by the Textile and Engineering Industries at large. Besides the abovementioned organisations there are Employers Organisations located out-side the district of which several large and small industrial units are members. They are as follows:

- (1) Central Gujarat Cotton Dealers' Association, Bharuch,
- (2) Steel Wire Manufactures' Association, Calcutta,
- (3) Southern Gujarat Cotton Dealers' Association, Surat,
- (4) Indian Rubber Manufacturers' Association, Bombay,
- (5) Indian Chemical Manufacturers' Association, Bombay,
- (6) Organisation of Pharmaceutical Producers of India, Bombay,
- (7) All India Manufacturers Association, Ahmadabad, and
- (8) Indian Woollen Mills Federation, Bombay.

Welfare of Industrial Labour

In the context of the recognition of the need for rapid industrialisation, labour has come justifiably to occupy a pre-eminent place in the economy of the district and the State. Rapid development of labour legislation is an integral part of modern social organisation. Labour welfare includes such services, facilities and amenities which may be established in or in the vicinity of unertakings to enable the persons employed in them to perform their work in healthy and congenial surroundings.

Prior to Independence, the major portion of the territories of Vadodara district formed part of the Baroda State and the labour legislation followed in that State was applicable to it. In the State, in order to facilitate the promotion of industries and to regulate them on well-established principles the following rules and regulations were passed, viz. : The Baroda Factories Act (1930), Rules under the Baroda Factories Act (1932), Indian Workmen's Compensation Rules (1934), Bombay Maternity Benefit Act applied to

the Baroda State (1932), Maternity Benefit State Rules (1936), Boiler Act (1926), Boiler Rules (1937), Trade Disputes Rules (1938), Trade Unions Act (1938), Trade Unions Regulations (1938), Cotton Ginning and Pressing Act (1931), Cotton Ginning and Pressing Rules (1936), Payment of Wages Act as applied to the Baroda State (1940), Bombay Payment of Wages Rules, as applied to the Baroda State (1941), The Payment of Wages (Producer) Rules (1942). Almost all these Acts and Rules were based on similar legislation prevailing in the Indian Union with suitable local variations. With the advent of Independence and merger of Baroda State into Bombay State, the importance of labour was recognised and several measures were taken to promote the welfare of industrial labour. Some of the important establishments like Sarabhai Chemicals, Alembic Chemicals, Dinesh Mills, Jyoti Ltd. etc., also regard welfare work as prudent investment. The section that follows outlines the measures undertaken for the welfare of the industrial labour which includes (a) The Factories Act, 1948, (b) Subsidised Industrial Housing Scheme, (c) Minimum Wages, (d) Medical Benefits, (e) Labour Welfare Centres, (f) Creche buildings, and (g) Canteen facility.

The Factories Act, 1948

The harmonious industrial relationship in factories and workshops depends on the humane treatment of the workers. For the regulation of conditions of labour, a beginning in the labour legislation was made as early as 1881, when the Factories Act, 1881 was passed. This Act was a simple piece of legislation primarily designed to protect children and to provide for some health and safety measures. The Act was amended several times to meet the changing conditions.

The Act covers all industrial establishments employing 10 or more workers, where power is used, or 20 or more workers, where power is not used. It has made a number of provisions relating to health, safety and welfare of workers. It provides for cleanliness, ventilation, cooling of air, sufficient lighting, supply of drinking water, separate latrines and urinals for males and females, artificial humidification, disposal of waste and effluents.

It further provides for fencing of machinery by substantial construction. Provisions are made for adequate washing facilities, canteens in units employing 250 workers, creches in units employing 50 women and shelter or rest rooms in units employing 150 workers. The minimum age for employment of young persons is fixed at 14 and the upper age limit for adolescents is raised from 17 to 18 years. The hours of work, have been fixed at 48 hours a week and 9 hours a day for adult workers. Thus, the Act makes adequate provisions for the safety, health and welfare of the workers.

Subsidised Industrial Housing Scheme

The problem of adequate and sanitary housing to industrial labour is solved through the State Housing Board under the subsidised industrial housing scheme. Under this scheme an industrial worker covered by the Factories Act, 1948, with monthly income not exceeding Rs. 500 is eligible for tenement at a subsidised rent. The ceiling for the construction of such a tenement ranges from Rs. 3,300 to 3,700 towards which the Central Government grants 50 per cent by way of loan and 50 per cent as subsidy to the State Government. The sub-joined Statement V.8. gives figures of 1,028 tenements constructed during the Second, Third and Fourth Five Year Plans in the district.

Besides this, following five industries have provided blocks to their workers viz ;

- (1) Gujarat Refineries, Jawahar Nagar, Vadodara,
- (2) Gujarat State Fertilisers Company, Fertiliser Nagar, Vadodara,
- (3) Indian Petro-Chemical Corporation Limited, Jawahar Nagar, Vadodara,
- (4) Alembic Chemical Works Company Limited, Vadodara, and
- (5) Alembic Glass Industries Limited, Vadodara.

STATEMENT V-8

Tenements Constructed During Second, Third and Fourth Five Year Plans

Sl. No.	Location	Second Five Year Plan		Third Five Year Plan		Fourth Five Year Plan	
		No. of Tenements	Total cost (in Rs.)	No. of Tenements	Total cost (in Rs.)	No. of Tenements	Total cost (in Rs.)
1	Vadodara	212	7,19,000	288	11,70,600	524	34,67,488

Source :
The Housing Commissioner, Gujarat Housing Board, Ahmadabad.

Wages

The problem of wage determination cannot be considered in isolation from the larger economic and social background obtaining at present in

the district. A well conceived wage policy aims at (a) continuous improvement in living standards of workers and (b) reasonable returns for the employers. In the sphere of wages, workers in the less organised industries have been given income protection through the Minimum Wages Act, 1948. The State Government has made addition, from time to time, to the list of employments covered under this Act. The Statement V.9 appended at the end of the chapter gives a comparative idea of minimum wages fixed for workers of the different industries :

Medical Benefits

Almost all the registered factories in the district have provided first-aid boxes for the safety of their workers. The Vadodara city and industrial areas around it, are covered under the Employees' State Insurance Act and as such, medical facilities are given to industrial workers, by the Employees' State Insurance Corporation. Following units in the district, viz., Alembic Chemical Works Co. Ltd., Vadodara, Alembic Glass Ltd., Vadodara, Sarabhai Chemicals, Vadodara, Suhird Geigy Ltd., Vadodara, Jyoti Ltd., Vadodara, Gujarat State Fertilisers Co. Ltd., Fertiliser Nagar, Gujarat Refinery, Jawahar Nagar, provided free medical facilities to the employees.

Labour Welfare Centres

There are three labour welfare centres, viz., (i) at Padra Housing Colony, (ii) at Gorwa Rural Clinic, and (iii) near Fatehpura Municipal Fire-brigade. All these 'C' type labour welfare centres provide the welfare activities conducted such as library and reading room, games and sports etc. Shishu Vihars are provided for the benefit of children of workers. For women, arrangements have been made for sewing classes.

Creche Buildings

In the district, the following industries have provided creche buildings viz. (i) Baroda Electronics Industry Ltd., Vadodara, (ii) Kesharia Investment Limited (Priya Laxmi Mills), Vadodara and (iii) New India Industries Ltd., Vadodara.

Canteen

In the district, 37 factories have provided the canteen facilities.

STATEMENT V-3

Number of Factories and Workers for all Industries in 1960, 1965 and 1970
in the Vadodara District

Sl. No.	Name of Industry	1960			1965			1970		
		No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of factories	No. of workers	No. of workers
1	2	3	4	5	6	7	8	9	10	11
1	Gins and presses	..	..	..	..	..	..	..	..	..
2	Manufacture of dairy products	..	..	..	..	..	..	..	..	..
3	Canning and preservation of fruits and vegetables	..	..	..	..	..	..	..	..	..
4	Manufacture of grain mill products	..	..	..	..	..	..	..	..	..
5	Manufacture of bakery products	..	..	..	..	..	..	..	..	..
6	Manufacture of miscellaneous food preparations	..	..	..	..	..	..	..	..	..
7	Soft drinks and carbonate water industries	..	..	..	..	..	..	..	..	..
8	Tobacco manufacture	..	..	..	..	..	..	..	..	..
9	Spinning weaving and finishing of textiles	..	..	..	..	..	..	..	..	..
10	Manufacture of textiles not elsewhere classified	..	..	..	..	..	..	..	..	..
11	Manufacture of wearing apparel (except foot wear)	..	..	..	..	..	..	..	..	..
12	Manufacture of wood and cork except manufacture of furniture	..	..	..	..	..	..	..	..	..
13	Manufacture of furniture and fixture	..	..	..	..	..	..	..	..	..
14	Manufacture of pulp, paper and paper board	..	..	..	..	..	..	..	..	..

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15	Printing, book binding etc.	..	..	..	..	..	..	..	..	..
16	Manufacture of rubber and rubber products	..	..	..	..	..	..	..	..	..
17	Basic chemicals (including fertilizers and miscellaneous chemical products)	..	..	..	..	..	..	..	..	..
18	Petroleum refineries	..	..	..	..	..	..	..	..	..
19	Structural clay products	..	..	..	..	..	..	..	..	..
20	Glass and glass products (except optical lenses)	..	..	..	..	..	..	..	..	..
21	Non metallic mineral products	..	..	..	..	..	..	..	..	..
22	Basic metal industries (ferrous)	..	..	..	..	..	..	..	..	..
23	Basic metal industries (non-ferrous)	..	..	..	..	..	..	..	..	..
24	Metal products (except machinery and transport equipments)	..	..	..	..	..	..	..	..	..
25	Manufacture of machinery (except electrical machinery)	..	..	..	..	..	..	..	..	..
26	Electrical machinery	..	..	..	..	..	..	..	..	..
27	Rail road equipments	..	..	..	..	..	..	..	..	..
28	Manufacture and repairs of motor vehicles	..	..	..	..	..	..	..	..	..
29	Manufacture of bicycles	..	..	..	..	..	..	..	..	..
30	Transport equipment (not elsewhere classified)	..	..	..	..	..	..	..	..	..
31	Photographic and optical goods	..	..	..	..	..	..	..	..	..
32	Watches and clocks	..	..	..	..	..	..	..	..	..
33	Manufactures of industries (not elsewhere classified)	..	..	..	..	..	..	..	..	..
34	Electric light and power	..	..	..	..	..	..	..	..	..
35	Gas manufacture and distribution	..	..	..	..	..	..	..	..	..
36	Water supply station	..	..	..	..	..	..	..	..	..
37	Sanitary service (pumping and sewage)	..	..	..	..	..	..	..	..	..
38	Manufacture of miscellaneous chemical products	..	..	..	..	..	..	..	..	..
39	Manufacture of pottery, chairs and earthen ware	..	..	..	..	..	..	..	..	..
Total		187	28,107	356	44,869	467	52,473			

Source : Census of India 1971, Vadodara District, Part X.-C-I, (1972).

STATEMENT V-5

**The Number of Establishments and Number of Persons Employed in
Cottage and Small Scale Industries Selected for Survey 1959-60**

INDUSTRY : SMALL SCALE

DISTRICT : VADODARA

Name of the industry 1	Total Number of establishments				Number of persons employed in the selected Industries						Total Number of persons employed in the selected Industries		
	Power		Non-Power		Household			Outsiders			Industries		
	2	4	3	5	6	7	8	9	10	11	12	13	
Weaving ..	..	..	..	..	..	..	..	..	..	..	..	..	
Dyeing and printing ..	..	..	..	..	..	..	..	..	..	..	..	..	
Jari thread works ..	..	..	..	..	..	..	..	..	..	..	..	..	
Blacksmithy ..	..	..	..	..	..	..	..	..	..	..	..	..	
Metal works ..	..	..	..	..	..	..	..	..	..	..	..	..	
Carpentry ..	2	2	..	5	..	5	22	..	22	27	..	27	
Cane and bamboo products ..	..	..	..	..	..	..	..	..	..	..	..	..	
Bricks and tiles ..	..	4	4	..	12	12	..	51	51	..	63	63	
Other potteries ..	..	1	1	..	10	10	..	..	..	..	10	10	
Leather working and tanning ..	..	2	2	..	2	2	..	34	34	..	36	36	
Oil pressing ..	..	..	..	..	..	..	..	..	..	..	..	..	

DISTRICT GAZETTEER : VADODARA

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Gur making ..	..	..	..	..	..	..	..	..	..	..	..	..
Bee keeping ..	..	..	..	..	..	..	..	..	..	..	..	..
Soap making ..	..	..	..	..	..	..	..	..	..	..	..	..
Match making ..	..	..	..	..	..	..	..	..	..	..	..	..
Paddy husking ..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	2	9	7	5	24	29	22	85	107	27	109	136

Source :

Government of Gujarat, Bureau of Economics and Statistics, Ahmadabad, Quarterly Bulletin of Economics and Statistics, Vol. II,
No. 1, January-March, 1962.

STATEMENT V-6
The Number of Establishments and Number of Persons Employed in
Cottage and Small Scale Industries Selected for Survey 1959-60

Name of the Industry 1	INDUSTRY : COTTAGE												
	DISTRICT : VADODARA												
	Total Number of establishments			Number of persons employed in the selected Industries						Total Number of persons employed in the selected Industries			
	Power 2	Non- power 3	Total 4	Power 5	Non- power 6	Total 7	Power 8	Non- power 9	Total 10	Power 11	Non- power 12	Total 13	
Weaving ..	..	421	421	..	945	945	..	5	5	..	950	950	
Dyeing and printing ..	..	9	9	..	20	20	..	20	20	..	40	40	
Jari thread works ..	..	..	..	..	..	..	..	..	..	..	..	..	
Blacksmithy ..	15	422	437	22	526	548	32	145	177	54	671	725	
Metal works ..	9	299	308	17	478	495	5	59	64	22	537	559	
Carpentry ..	3	511	514	8	761	769	14	51	65	22	812	834	
Cane and bamboo products ..	..	117	117	..	195	195	..	4	4	..	199	199	
Bricks and tiles ..	..	75	75	..	285	285	..	174	174	..	459	459	
Other potteries ..	..	1,018	1,018	..	3,408	3,408	..	..	..	..	3,408	3,408	
Leather working and tanning.	..	470	470	..	998	998	..	159	159	..	1,157	1,157	
Oil pressing ..	14	428	442	21	537	558	39	12	51	60	549	609	

DISTRICT GAZETTEER : VADODARA

Gur making ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Bee keeping ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Soap making ..	..	18	18	..	33	33	..	68	68	..	101	101	
Match making ..	..	..	..	..	..	..	..	..	..	..	..	..	
Paddy husking ..	48	..	48	90	..	90	96	..	96	186	..	..	
Total ..	89	3,788	3,877	158	8,186	8,344	186	697	883	344	8,883	9,227	

Source : Government of Gujarat, Bureau of Economics and Statistics, Ahmadabad, *Quarterly Bulletin of Economics and Statistics*, Vol. II, No. 1 January-March, 1962.

STATEMENT V-7
The Small Industries In Unorganised Sector

Sl. No.	Name of Industry	No. of Units	Type of Organisation				Units			No. of workers emp-loyed
			Partner ship	Propri- torship	Co-opera- tive society	Others	Using power	Not using power	Total	
1	2	3	4	5	6	7	8	9	10	11
1	Manufacture of dairy products ..	2	1	1	..	..	2	..	2	13
2	Manufacture of grain mill products ..	6	3	2	1	..	5	1	6	40
3	Manufacture of bakery products ..	4	..	4	..	..	2	2	4	30
4	Manufacture of coca, chocolate and sugar confectionery ..	1	..	1	..	..	1	..	1	5
5	Manufacture of miscellaneous food preparation ..	13	6	6	..	1	6	7	13	92
6	Soft drinks and carbonated water industries ..	2	1	1	..	..	1	1	2	15
7	Tobacco manufacture ..	19	3	16	..	..	..	19	19	167
8	Spinning, weaving and finishing of textiles ..	5	2	3	..	..	4	1	5	41
9	Manufacture of textiles not elsewhere classified ..	2	1	1	..	..	1	1	2	22
10	Manufacture of footwear ..	4	2	1	1	..	2	2	4	32
11	Manufacture of wearing apparel (except footwear) ..	26	6	20	..	..	2	24	26	175

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12	Manufacture of made up textile goods (except wearing apparel) ..	1	..	1	..	..	..	1	1	5
13	Saw mills planning and other good mills ..	19	..	..	..	..	..	..	..	..
14	Wooden and cane containers and cane small wares ..	4	1	3	..	..	2	2	4	31
15	Manufacture of cork and wood products not elsewhere classified ..	5	1	4	..	..	3	2	5	28
16	Manufacture of furniture and fixture ..	14	6	8	..	..	7	7	14	107
17	Manufacture of pulp, paper and paper board ..	5	3	2	..	..	4	1	5	32
18	Printing, publishing and allied industries ..	25	9	16	..	..	24	1	25	163
19	Manufacture of leather products except footwear and wearing apparel ..	1	..	1	..	..	..	1	1	5
20	Manufacture of rubber products ..	2	2	..	..	..	2	..	1	11
21	Basic industrial chemicals including fertilizers ..	2	2	..	..	..	2	2	2	14
22	Manufacture of miscellaneous chemical products ..	14	6	6	2	..	4	10	14	92
23	Manufacture of structural clay products ..	10	..	10	..	..	..	10	10	69
24	Manufacture of glass and glass products ..	21	5	16	..	..	20	1	21	148
25	Manufacture of non-metallic mineral products not elsewhere classified ..	13	4	9	..	..	5	8	13	110
26	Manufacture of metal products except machinery and transport equipment ..	33	14	19	..	..	21	12	33	238

STATEMENT V-7—contd.

Sl. No.	Name of Industry	Type of Organisation					Units		No. of workers employed
		No. of Units	Partnership	Proprietorship	Co-operative society	Others	Using power	Not using power	
1	2	3	4	5	6	7	8	9	10
27	Manufacture of machinery except electrical machinery ..	31	13	18	..	..	28	3	31
28	Manufacture of electrical machinery, apparatus, appliances and supplies ..	6	4	2	..	..	4	2	6
29	Manufacture of motor vehicles ..	1	..	1	..	..	1	..	1
30	Repair of motor vehicles ..	15	5	10	..	..	12	3	15
31	Manufacture of motor cycles and bicycles ..	2	1	1	..	..	1	1	2
32	Manufacture of photographic and optical goods ..	4	..	4	..	..	4	..	4
33	Manufacture of watches and clock ..	1	..	1	..	..	..	1	1
34	Manufacture of jewellery and related articles ..	1	..	1	..	..	..	1	1
35	Manufacture of industries not elsewhere classified ..	12	4	8	..	..	11	1	1
	Total ..	326	120	201	4	1	197	129	326
									2,294

STATEMENT V-9
Rates of Minimum Wages in the District Fixed Under the Minimum Wages Act, 1948

Sl. No.	Name of the Employment	Skilled	Semi-skilled		Unskilled	Clerical staff	Date from which the wage rates are in force	Remarks if any
		3	Daily rate	Monthly rate	5	6	7	8
1	Employment in any tobacco (including bidi making) Manufactory.	Baroda	Other parts of the district		Per 1000 bides for bidi makers			
		Daily rate	Monthly rate	Daily rate	Monthly rate	Nadiad	For other Umreth, parts of the district	
		4.05	105.30	3.83	99.58	Borsad, district	for "Afta" or "Asatri" bides will be more by Re. 0.50 per 1000 bides.	
		5.19	134.94	4.84	125.84	Khambhat Kapadwanj	3.25	
		4.88	126.70	4.50	117.00	4.00	3.50	
		5.19	134.94	4.84	125.84			
		4.05	105.30	3.83	99.58			

1. The minimum rates for double "Nakh" bidi will be more by Re. 0.50 per 1000 bides.

2. The minimum rates for "Afta" or "Asatri" bides will be more by Re. 0.50 per 1000 bides.

3. The minimum rates are to be paid to the employees where the leaves are supplied by the employers.

4. Where the employers are not supplying leaves for rolling of bides Rs. 1.00 will be paid extra to the workers per every 1000 bides.

STATEMENT V-9—contd.

Sl. No.	Name of the Employment	Skilled	Semi-skilled	Unskilled	Clerical staff	Date from which the wage rates are in force	Remarks if any
1	2	3	4	5	6	7	8
2	Employment in any oil mill : Vadodara per day per month	6.06 157.56 5.10 134.94 3.81 99.06	6.06 157.56 5.10 134.94 3.81 99.06	6.06 157.56 5.10 134.94 3.81 99.06	6.06 157.56 5.10 134.94 3.81 99.06	6.15 15.8.1972 160.00	5. The minimum rates include, charges for the cutting of leaves and packing of bundles of 25 each.
	Other parts of the district : per day	..	5.60 145.06	4.85 126.10	4.25 110.50	5.77	
	per month..	..	5.35 139.10	4.50 119.60	4.00 104.00	150.00	
3	Employment in the tanneries and leather manufactory. Vadodara-Chhotat- Udepur Tanneries : per month .. Dabhoi, Karjan, Padra and Savli : per month .. Leather Manufactory Chhani	.. .. .. .. .. ..	104.00 93.60 97.50 84.50 91.00 83.20	83.20 80.60 78.00	.. .. ..	1-3-1966	

STATEMENT V-9—contd.

Sl. No.	Name of the Employment	Skilled	Semi-skilled	Unskilled	Clerical staff	Date from which the wage rates are in force	Remarks if any
1	2	3	4	5	6	7	8
4	Employment in any tobacco processing establishment. (a) Employment in Bonded houses used for tobacco processing per day. (b) Employment in the Virginia tobacco processing establishments (i) Supervisors per month (ii) Supervisor (Mukadam) total and clerk per month	.. 2.25 125.00 100.00	.. per day 3.00 per day per day	.. per month per day per day	.. 75.00 Watchmen 70.00 Peon 45.00 Safai-kamdar part-time Miscellaneous worker	1-10-1966	
5	Employment in any power loom Industry. (i) Vadodara. Per month .. (ii) Other parts of the district. Per month	120.00 105.00	100.00 85.00	..	90.00 75.00	1-1-1967	
6	Employment in any rice mill or dal mill. (i) Vadodara. Per month .. (ii) Town having population of 10,000 persons and above but less than 35,000 persons. Per month .. (iii) Other parts of the district. Per month	95.00 85.00 80.00	85.00 75.00 70.00	..	78.00 67.00 62.00	1-4-1967	

STATEMENT V-9—concl'd.

Sl. No.	Name of the Employment	3	4	5	6	7	8
1	2	Skilled	Semi-skilled	Unskilled	Clerical staff	Date from which the wage rates are in force	Remarks if any
7	Employment in any cotton ginning or cotton pressing manufactory ..						
	(i) Vadodara A per month ..	150.00	110.00		80.00	1-1-1967	
	B per month ..	110.00	90.00				
	(ii) Dabhoi Karjan A per month ..	140.00	90.00		70.00		
	B per month ..	100.00	80.00				
	(iii) Other parts of the district ..						
	A per month ..	130.00	80.00		60.00		
	B per month ..	90.00	70.00				
8	Employment in Potteries Industry ..						
	(i) Vadodara and Borough municipalities as constituted under the Gujarat Municipalities Act, 1963 ..					1-2-1969	
	Per day ..	4.25	3.65	2.85	125.00		
	Per month ..	110.50	94.50	74.10			
	(ii) All other areas not included above ..						
	Per day ..	4.10	3.50	2.70			
	Per month ..	106.60	91.00	70.00	110.00		
9	Employment in bobbin industry ..					1-5-1969	
	A per day ..	6.10	3.50	2.70			
	B per day ..	4.40	3.10				

Source : The Commissioner of Labour, Ahmadabad.

CHAPTER VI

BANKING, TRADE AND COMMERCE

A—Banking and Finance

GENERAL CREDIT FACILITIES

Money-lenders

Before the development of co-operative and commercial banking in the district, money-lenders were the masters of the money-market. They exercised great influence in the Vadodara State, as they lent even to the ruler. Such money-lenders were known as *Potedars* and *Baxi*. Gopalrao Mairal, Hari Bhakti, Shamal Bechar, Lallu Mangal and Ratanji Kahandas were the famous State Bankers of the 19th century in the Baroda State.

"Ninety-five per cent of the present capital invested in agriculture is advanced by the private money-lenders who are of all imaginable types and shades, from the highly respectable bankers to the cruel and heartless Shylock."¹ The money-lenders functioning in the district were divided into three classes, *e. g.*, (1) bankers and *sahukars* residing in the large towns, or taluka/district headquarter places, (2) village shop-keepers and traders who combined money-lending with their business, and (3) successful cultivators and landlords who combined money-lending with farming. The money-lenders of the first class, *i. e.*, bankers and *sahukars*, who usually resided in some large towns were mostly Vantias and sometimes Brahmans. They did business with the better class of cultivators. They usually charged interest at the rate of 6 to 12 per cent and advanced loans on personal security as well as on land. They were usually found straight forward and honest in their dealings and did not drive any hard bargain. When the security was a mortgage with possession, they permitted the cultivator to farm the land. Each of them had a sphere of influence and operated in certain specified villages.

The second group consisted of village shopkeepers and traders. They sold their goods and wares on credit to the cultivators of their own as also of surrounding villages and also gave cash loans. They charged interest at the rate of 12 to 15 per cent on loans to the lower and middle classes of cultivators, to farm labourers, driving very hard bargain with the latter from whom they charged interest at rates varying from 25 to 75 per cent. The cultivators who offered better securities were charged 12 per cent, as book interest, while extra cost them from 10 to 15 per cent. They had always an eye on some good field and took away the land without mercy. To new clients they advanced very liberally for all purposes and went on advancing

1. DESAI G. H. AND CLARKE A. B. *Gazetteer of the Baroda State*, Vol. I, (1923), p.336

to the highest limit. They took every advantage of the ignorance of the poor ryots. The *khedut* was obliged to live and work for the *sahukar*. All the produce of cultivators' farm was taken away by the *sahukar*, leaving very little for his use.

The third class of money-lenders, consisting of the well-to-do cultivators and landlords, was mostly confined to Vadodara taluka and Sinor mahal. They formed the most intelligent class of the farming community, shrewd and business like. The number of *potedars* doing money-lending business was very small. Besides the three classes of money-lenders in the State enumerated above, some Pathans were also doing money-lending business in the State. They financed the lowest class of cultivators like Kolis, Dharalas, etc., and charged exorbitantly. For recoveries, they relied on personal threat and coercion.

Legally, the maximum rate of interest was fixed at 12 per cent per annum but very high rate was charged from lower and backward class cultivators. In this district, the lowest rate of interest was paid by the cultivators of Sinor mahal. However, the rate of interest depended mainly on the creditworthiness of the borrower as also on the security offered.

The *Report on Baroda Banking Inquiry Committee*¹ mentions that the relations between farmers and money-lenders were very much cordial before 1896. Before 1896, the *sahukar* acted as the protector (*ma-bap*) of the cultivating classes and benevolent friend of the rest of the villagers. He transacted all the business of the village, i. e., selling crops and supplying all necessities. He paid Government dues on behalf of farmers. Credit was personal and security was seldom required. The village also was more organised and the *sahukar* was not permitted to exploit the ryots. The seasons were good, produce ample and steady and the money-lender always willing to lend. There was even the competition among the *sahukars* to lend. The *sahukar* would go to a village with a bag of money and would persuade the farmers to accept small loans. He would show when and how to spend.

But after 1896, because of frequent famines and epidemics, crop was severely affected. Due to this, the cultivators were not able to repay the loans they borrowed from the *sahukars*. This strained their relations. The *sahukars* became more cautious in their lendings. The State tried to improve the relations and issued in November, 1899 a Notification permitting the *sahukar* to lend money at 9 per cent with the condition that Government would help him to realise the sum so advanced by revenue process. Even this did not help much. The State also took several measures to protect the interest of the cultivators. It passed the Interest Act in 1891 under which no court could allow more than 12 per cent interest. The rule of *dam-dupat* which permitted the recovery of interest to the extent of the amount of the principal due was also applied. It was also provided in the Civil Procedure

1. *Report on the Baroda Banking Inquiry Committee*, (1929), pp. 60-65.

Code of the State that backward class agriculturists could get their accounts inspected by the court even when they were finally settled. The cultivator was permitted to sue for accounts.

These measures were too feeble to check the usurious practices of unscrupulous money-lenders. The *khedut* was completely at the mercy of the *sahukars* who exploited him in all possible ways. The result was that the cultivating community was sunk into heavy debt. This in turn inhibited the incentive to grow more crops in the field, because whatever was produced was taken away by the money-lenders. Moreover, the alternative agency to cater to the credit requirements of the agriculturists was also not very effective.

After Independence the Government realised that if the economic condition of the agriculturists was to be improved, they should be first freed from the clutches of money-lenders. Several measures to combat the evils were, therefore, initiated. On the one hand, the co-operative societies were encouraged to provide necessary finance to the cultivators and on the other certain restrictions were imposed under the Bombay Money-lenders Act, 1946. The Act was applied to the district soon after its merger with the Bombay State in 1949. The main provisions of the Act are : licensing and registration of money-lenders, maintenance of accounts in prescribed forms, furnishing of receipts and statement of accounts to debtors and fixation of rate of interest on secured (12 per cent) and unsecured (15 per cent) loans. Under the scheme of regulated credit, the money-lenders are expected to provide credit keeping in view the social justice. Most of the loans for agricultural purposes being unsecured, the agriculturists usually pay interest at the rate of 15 per cent. Strict vigil is kept on the lending activities of money-lenders, especially in the backward areas. Despite these restrictions, the money-lenders still play important role in the structure of rural finance. This will be evident from the following table.

STATEMENT VI-1

Working of Money-lenders, 1967-72

(RS. IN LAKHS)						
Sl. No.	Year		No. of licen- sed money- lenders	Loans to traders (Rs.)	Loans to non-traders (Rs.)	Total Loans (Rs.)
1	2		3	4	5	6
1	1967	..	657	29.56	88.58	118.14
2	1968	..	657	74.21	71.07	145.28
3	1969	..	679	91.78	114.03	205.81
4	1970	..	693	74.80	132.39	207.19
5	1971	..	694	11.63	148.60	160.23
6	1972	..	678	21.52	152.23	173.75

Source : District Registrar, Money-lending, Vadodara District, Vadodara.

The above statement reveals that though the number of money-lenders has remained more or less steady during the years 1967 to 1972, their loans to non-traders, which also included agriculturists, have increased continuously, *i. e.*, from Rs. 88.58 lakhs in 1967 to Rs. 152.23 lakhs in 1972. Unlike this, the advances to traders show a declining trend, *i. e.*, from Rs. 29.55 lakhs in 1967 to Rs. 11.63 lakhs in 1971. Their total advances were the highest (*i. e.*, Rs. 207.19 lakhs) in 1970. This shows that despite the growth of commercial and co-operative banks as also other financial institutions sponsored by the Government, the money-lender is an important factor especially in the rural economy. His relations of centuries with the cultivating community have enabled him to survive even amidst the growth of giant financial institutions in the public sector.

Indebtedness

In India, social customs have had a powerful influence on the people more so in the rural and backward areas. The poor ryots borrow money not merely for marriage and other festivals but also for the purchase of grains and manure. Such borrowings made them indebted to the money-lenders.

In the beginning, the State Government did not pay much attention as it was busy in collecting land tax and the questions incidental to land-revenue policy were not tried in a scientific manner.

Before 1875, there was no law which could oblige the money-lender to submit his accounts for periodic inspection. The increase in the debt of the cultivator was regulated by the rule of *dam dupat*, which provided for the recovery of the interest to the extent of the amount of the principal due. The State's administration was, however, reorganised in 1875. The new Courts of Law facilitated the recovery by the money-lender, and farm lands served as a valuable security. This resulted in the prosperity of the money-lending institutions. Upto 1899, the farmers could borrow recklessly and the *sahukars* also advanced very freely on account of favourable seasons. This resulted in the heavy indebtedness of the cultivators and mortgages of land were rather too frequent. As a remedial measure, the State reduced the land assessment. The great famine of 1899 was an eye-opener. Human beings and cattle perished in plenty and valuable property was sold at a negligible price. Land values also depreciated and with it the credit of the farmers. Sayajirao III gave ample relief to the people and also ordered an inquiry into the problem and took steps to relieve the extent of indebtedness.

The first estimate was made in the year 1901, which revealed that the total amount of debt was as large as Rs. 7.57 crores in the State. In the Vadodara district, the *Khatedar* was indebted to the extent of Rs. 620 on

an average, which was the highest in comparison to other areas of the State. Thereafter estimates were made in the years 1912 by a special committee appointed by the Vadodara State, in 1918 by the Baroda Economic Committee and in 1925 by the Land Mortgage Bank Development Committee and in 1925 by the Land Mortgage Bank Committee which revealed that the indebtedness of the agriculturists in the State had practically remained the same. The Baroda Banking Inquiry Committee, which was appointed in September 1929, under the Chairmanship of (late) Sir Manilal B. Nanavati, Development Commissioner, inquired into the causes of indebtedness among the farmers in the State. The *inter alia* into the causes of indebtedness generalised by the above Committee were : (1) uncauses of indebtedness (2) social customs ; (3) drinking habits of the economic holdings of land, (2) social customs ; (3) drinking habits of the people, especially, among the Kolis, Thakardas and Bhils, and (4) famines.

As the indebtedness had grown enormously, it was necessary to give relief to the farmers by reducing debts proportionately. Three distinct remedies were suggested for the purpose : (1) wholesale liquidation of debts by means of conciliation proceedings, (2) passing of legislation similar to the Deccan Agriculturists' Relief Act or the Punjab Land Acquisition Act, and (3) slow liquidation of debts through land mortgage banks or other banks or the co-operative societies.

The Committee did not consider wholesale liquidation of debts through conciliation as it would amount to large burden on the State's resources. It was also not in favour of passing any legislation regarding the settlement through conciliation proceedings. The Committee felt that the money-lenders would be unwilling to submit to the procedure and would ultimately refuse to make any advances to the cultivators-*khatedars*. Secondly, it was difficult to determine between an economic debt and an uneconomic debt. In case of farmers, some were very thriftless, improvident and uneconomic and they would remain always sunk in debts. The Committee also did not favour legislative measures for reduction of debts. However, it favoured liquidation of debts through co-operative societies as the best one. Being directly connected, the co-operative societies would be in a position to meet the requirements of their members. The Committee was of the opinion that the period of loans should be increased to 15 or 20 years and that such lendings should be made by a land mortgage bank.

Two important legislative measures were enacted by the Vadodara State to provide some relief to the debtor cultivators. These were : (1) Agriculturists' Debt Regulation Act, 1935 and (2) Debt Conciliation Act, 1936. The former intended to provide relief to small holders and was a purely temporary measure. The courts were empowered to examine the history of the debt, reopen the transactions and fix on equitable ground the amount that should be paid and decree of repayment in easy instalments. However, the relief under this Act was available to small agriculturists whose income from

land did not exceed Rs. 750 per annum. The primary object of the Debt Conciliation Act was the establishment of Conciliation Board for reducing the burden of agricultural debt.

After merger of the Baroda State, provisions of the Bombay Agricultural Debtors' Relief Act, 1947 were made applicable to the Vadodara district in 1950. The main provisions of the Act are : (1) to help agriculturists get back the land, which they had sold to money-lenders at the time of borrowing, and (2) to relieve the agriculturists from the burden of their past debts by properly adjusting the debt and providing facilities of repayment in easy instalments. Under this Act, Civil Courts in the district, disposed of 106,494 applications of debtor cultivators involving an amount of Rs. 589,96,126. The total amount by which the debts were reduced was Rs. 206,75,681, till the year 1970.

It has been realised that the best solution of the problem of agrarian indebtedness lies in the sound economic conditions of the peasantry. Development of co-operative movement, better returns for the farmers' output, provision of adequate finance through co-operative banks or through nationalised banks and spread of education will solve the problem of agrarian indebtedness.

JOINT STOCK BANKS

Past History—Before 1875, banking was unknown in the Baroda State. There was neither any large-scale industry nor prosperous agriculture. The limited financial requirements of small traders, craftsmen and cultivators were met by the local *shahukar* in the village and *Shroff* in the town. The remittance of money was done through the agency of the *Potedar*, or money-lender, which played a prominent part in the banking history of the State. In the absence of treasuries, the State borrowed from an accredited banker issuing either money-order on him or by grant of a letter of credit (*varat*) on some *izardar*. In the time of Anandrao Gaekwad (1800-1819), there were five such *Potedars*, viz., Hari Bhakti, Gopalrao Mairal, Ratanji Kahandas, Lallu Mangal and Shamal Bechar, who lent money at $4\frac{1}{2}$ to 9 per cent interest to the State and also charged an additional sum known as *manoti*.

This system, however, involved the State into heavy indebtedness. With a view to extricate itself from the obligations of the Government of Bombay and of the *Potedars*, Sayajirao II (1819-1847) started the *Dukans*, a crude form of banking institution, at different places in his State and at Ahmadabad and Surat also. The State's resources and the personal funds of the Maharaja and the royal family were placed at their disposal and through them were finances made available not only to the State but also to the trade and industry all over Gujarat. With the help of such banks, he assumed the sole

Potedari of the State and succeeded in evicting the whole band of *Potedars*. Khanderao Gaekwad and Malharrao Gaekwad also took keen interest in expanding the operations of such *Dukans*.

They were, however, wound up under the administrative reforms of Raja Sir T. Madhavrao, Dewan of Baroda. Simultaneously he established treasuries at important places in the State, which handled the entire financial work of the Government. With the closure of *Dukans*, the people and the State resorted borrowing from the indigenous bankers. At this juncture, there came a welcome change in the State's policies.

The Government realised that agriculture and industry should not strave for want of funds, neither the slender and ill-organised resources of village and town *sahukars* would be able to support them. Moreover, the joint stock banks were working efficiently and effectively in the industrial centres of Bombay and Ahmadabad. Under these circumstances, '*Baroda Pedhi*', with a capital of Rs. 3 lakhs was started in 1884. Yet trade and industries in the State did not make any headway. The State Government, therefore, appointed the Industrial Commission under the chairmanship of Mr. Dinsha Talyarkhan to study the causes of decline and to suggest the remedies for their revival. The Commission observed : (i) that there was continuous drain of money, (ii) that the *sarafi* system had become almost extinct, (iii) that there was dearth of capital, and (iv) that the money-lenders charged exorbitantly.

It found that the scope of '*Baroda Pedhi*' was limited and it could not meet the growing needs of commerce and industry and recommended its conversion into a bank. Further Mr. Whiteneck, who was engaged as Economic Advisor by the Government, saw that a good deal of money was hoarded in small sums. With the closing of the old *Dukans*, the State invested a major portion of its resources in the Bank of Bombay. He, therefore, suggested establishment of commercial banks at home to satisfy the needs of trade and industry.

The Bank of Bombay was requested to establish a branch office at Vadodara. But the Bank suggested that the State Government should keep Rs. 8 lakhs without interest with the proposed branch for a period of ten years and the work of State treasuries should be transferred to it. These conditions were not accepted. The request of the Indian Specie Bank (now defunct) to open its branch at Vadodara, without any conditions, was granted. But the mercantile community of Vadodara visualised that the proposed bank would function in the interests of its parent office at Bombay, and would utilise the deposits for the benefit of trade and industry of Bombay only. It, therefore, suggested that a bank with local resources and the State's assistance should be started. They thought that such a bank would function as a national bank and it would also be easy for it to open its branches throughout the territory of Gaekwad. The State appreciated the gesture of the leading merchants and finally resolved to start a State subsidised joint stock

bank at Vadodara with the assistance of well-known financiers like Sir Vithaldas Thakersey, Sir Lallubhai Shamaldas, Dewan Ambalal Sakerlal, Sheth Chimanlal Nagindas, etc., from Bombay and Ahmadabad. Accordingly the Bank of Baroda with a share capital of Rs. 10 lakhs was registered in 1908 under the Baroda Companies Act, 1897. The work of treasury was also transferred to it.

Thus the first bank in the district was registered in 1908. Another bank, viz., Pratapsingh Commercial Bank Ltd., was floated in 1917 but was subsequently wound up in 1920 as its working could not proceed satisfactorily. However, in that year, i. e., 1920, the Bank of Baroda opened its branch at Dabhoi.

The intervening period between the two World Wars (1918-1938) was one of general stagnation for the Indian economy and the banking industry was no exception. During this period, a branch of the Bank of Baroda was opened at Karjan in 1925 and at Sankheda in 1940. Thus till 1940, there were only four offices of the Bank of Baroda alone in the district.

The Second World War gave the much needed impetus to the economy and the banking industry prospered immensely. During this period, deposits and advances of the bank rose considerably. Further, branches of four other commercial banks like the Dena Bank, the United Commercial Bank, the Punjab National Bank and the Central Bank were also opened at Vadodara and Chhota Udepur. Thus, on the eve of Independence, there were nine banking offices of five commercial banks including the Head Office of the Bank of Baroda. In the meantime Five Year Plans were introduced to give a new shape to socio-economic conditions of the country. Bank had naturally to play a vital role in the growth of the industrial and commercial fields. During the period 1947-1960, thirteen more branches were opened at different centres in the district. In the decade that followed the total number of banking offices stood at 88. Of these 47 were in Vadodara city alone, on account of establishment of a nucleus of industries around it after the formation of Gujarat State.

The district is thus fairly well-served by the commercial banks, as will be evident from the following figures.

(FIGURES OF POPULATION IN THOUSAND)

Sl. No.	At the end of	No. of Commercial Bank Offices		Average Population per office	
		District	State	District	State
1	December 1947	52	593	35	41
2	June 1969	66	752	29	34
3	September 1970	85	955	23	28

Source :

Bank of Baroda, *Local Bank Survey Report on Baroda District*, March 1971, p. 132.

The figures reveal that the average population served by a single office is considerably lower in the district than in the State and that at the end of the year 1970 there was one bank for 23,000 people in the district as against 28,000 people in the State. The progress may be attributed to the post-nationalisation effects and rapid urbanisation in the district.

The location of banks in the district and years of their establishment till December 1970 are shown in the Statement VI-2 appended to the chapter. It shows that these are branches of nationalised banks only. There are no private banks in the district.

Deposits and Advances

Mobilisation of deposits from the public and making advances are the twin main functions of the banks. Prior to their nationalisation, a large share of advances went to few big industrial and commercial houses. But since nationalisation of the major 14 banks of Indian origin in the country in July 1969, there is a welcome change in their lending policies as, part of their investments are diverted also to the development of agriculture, small-scale industries and exports. The following statement gives an idea about the deposits collected and advances made by these banks in the district during the year 1968, the year preceding nationalisation and 1970, the post-nationalisation year.

STATEMENT VI-3

Deposits and Advances of Commercial Banks

(RUPEES IN LAKHS)

1968			1970		
Name of Centre	Deposits (Rs.)	Credit (Rs.)	Name of Centre	Deposits (Rs.)	Credit (Rs.)
1	2	3	4	5	6
Vadodara ..	4,238	1,958	Bajwa ..	107	22
Dabhoi ..	102	19	Vadodara ..	6,411	3,391
Others ..	412	100	Bodeli ..	32	19
Total ..	4,752	2,077	Chhota Udepur	48	19
			Dabhoi ..	116	26
			Karjan ..	51	29
			Koyali	29	7

STATEMENT VI-3 *contd.*

1968			1970		
Name of Centre 1	Deposits (Rs.) 2	Credit (Rs.) 3	Name of Centre 4	Deposits (Rs.) 5	Credit (Rs.) 6
			Padra ..	67	22
			Savli ..	27	16
			Sutor ..	24	4
			Others ..	518	116
			Total ..	7,430	3,671

Source :

Reserve Bank of India, *Statistical Tables Relating to Banks in India*, (1968), p. A 90 and (1970), p. A 124, 125.

The above statement indicates that bank lendings show a large dispersal in 1970 as compared to 1968. The amount of deposits rose by 56.36 per cent and that of advances by 76.75 per cent in 1970 over the year 1968. Vadodara, being the principal industrial and commercial centre in the district accounted for 86.29 per cent in deposits and 92.37 per cent in advances respectively in the year 1970.

Appendix-I Bank of Baroda

The history of commercial banking in the district would be incomplete without a special reference to the Bank of Baroda, which had its birth in 1908 in this district under the patronage of Sayajirao III, the then ruler of Vadodara, who declared it open on 9th July, 1908.

The bank's area of activities is spread not only in the country but extends beyond its frontiers in the United Kingdom, Africa, Japan, Fiji-Island, Georgetown etc. Its branch at Bombay established in 1919, has become the hub of business activities of the Bank. The Bank withstood the banking crisis during 1914-18, when a good number of banks were wound-up. It celebrated its Golden Jubilee in 1958. On account of its sound financial position, it is ranked among the nation's big five banks. On account of amalgamation of certain banking companies with the Bank of Baroda, the latter acquired a number of branches in Maharashtra and other States in the Indian Union, which further strengthened its position and resulted in enlargement of its operations. The bank has at present 571 branches inclusive of 22 abroad. In Gujarat State alone, the bank has 222 branches. In the district of Vadodara, the bank has 29 branches out of a total of 88 branches in 1970. In 1969, its ownership was acquired by the Government of India, alongwith other 13 major banks of Indian origin in the country. Since nationalisation, the bank has been implementing many a progre-

ssive measure inclusive of advances to the agriculture and small-scale industries and artisans, etc. The bank has thus considerably assisted the growth of trade and commerce and industry in the district. It will play still bigger role in years to come.

The balance sheet of the bank is reproduced here from the *Statistical Tables Relating to Banks in India*, 1970, a Reserve Bank of India publication.

STATEMENT VI-4

Liabilities and Assets of Bank of Baroda, 1970

(AMOUNT IN THOUSAND OF RUPEES)

Sl. No. 1	Particulars 2	Rs. 3
1	Paid-up capital ..	25,000
2	Reserves ..	37,394
3	Deposits :	
	(a) Fixed ..	23,47,148
	(b) Savings ..	10,48,387
	(c) Current ..	7,85,859
	Total ..	41,81,394
4	Borrowings from Banks ..	4,63,711
5	Other Liabilities ..	8,98,192
6	Balance of Profit or Loss ..	..
7	Total Liabilities or Assets ..	56,05,694
8	Cash :	
	(a) In hand ..	1,59,610
	(b) At Banks ..	3,18,203
9	Money at call and Short Notice ..	98,704
10	Bills Discounted and Purchased ..	6,35,215
11	Loans and Advances ..	24,67,292
	Investments :	
	(a) Government Securities ..	8,67,153
	(b) Other Approved Securities ..	1,96,105
	(c) Other investments ..	48,175
13	Premises and Immovable Property ..	39,902
14	Other Assets ..	7,75,327

Source :

Statistical Tables Relating to Banks in India, 1970, pp. 62-63.

CO-OPERATION

Co-operative movement has made rapid strides in the country since Independence. It passed through several stages and has lately embraced a variety of subjects like weavers co-operatives, ginning and pressing, purchase and sale, consumer stores, fisheries, housing, labour contract and forest labour, etc. In Gujarat, so far as primary societies are concerned, the movement has covered all the villages of the State, and attempts are being made to bring the population under the co-operative movement. Since 1959, a new concept has been initiated in the co-operative movement and some of the primary credit societies were converted into service co-operatives, rendering them more useful to the society and cultivators as well.

The broad objectives laid down for the co-operative movement in the Fifth Plan are briefly described below :

- (1) ensuring short and medium-term credit to all villages by viable primary agricultural credit societies, and gap, if any, to be filled up by nationalised commercial banks or central co-operative banks,
- (2) advance of short and medium-term finance by agricultural credit societies,
- (3) increase in membership of primary societies during the Fifth Plan by channelling efforts to enrol agricultural labourers as members during the Fifth Plan,
- (4) advance of long-term loans by the Land Development Bank,
- (5) advance from the nationalised banks for development of agriculture,
- (6) linking of agriculture credit with marketing and processing in the co-operative sector,
- (7) attempting by the co-operative sector of processing and marketing of agricultural commodities, wherever feasible, and
- (8) continuance and expansion of the existing scheme of financial assistance under co-operation.

Against this background, the growth of co-operative movement in the Vadodara district is narrated below.

Before the idea of co-operation gained ground in the country, Vadodara had actually successfully experimented in the concept of mutual help. The middle class people in the Vadodara town were faced with financial distress.

As a result of after dinner dialogue among a few friends, a mutual aid society to be known as the *Anyonya Sahayakari Mandali* was formed in 1889, long before the co-operative movement was even conceived in India. The moving spirit behind this was one Bhau Saheb Kavathekar, who was a classmate of (late) Bal Gangadhar Tilak. The famine of 1899 also led to the formation of first few societies.

With a view to solve the problem of indebtedness among its cultivators, the State enacted the Co-operative Societies Act, which came into force with effect from 15th December, 1904, following the British Indian model. This act provided for the lay out of the movement to facilitate the availability of easy and cheap credit to the cultivators in the State. In the very first year, 24 societies were organised. In the years 1912 and 1913, the Itola Group Multi-purpose Co-operative Society in the Itola taluka and the Jawahar Group Multi-purpose Co-operative Society at Karjan in Karjan taluka respectively were registered. In the initial stages, large sized societies were organised. But in response to the recommendations of the evaluation committee appointed by the State, service co-operatives were established.

A Registrar of the Co-operative Societies for the State was appointed in 1906 with full powers to organise, register and control the management of societies. In order to facilitate the formation of societies other than credit, a new Co-operative Societies Act which repealed the old Act of 1904 was passed in the State on the lines of similar British India Act II of 1912. This new Act came into force in the State with effect from 1st February, 1914. A District Central Co-operative Bank was registered in the year 1913 to provide short and medium term finance to the co-operative societies in the State. Thus it can be seen that by creating necessary agencies the State provided patronage to the growth of co-operative movement. In 1926-27 the Co-operative Societies Act, 1925 was amended to suit the conditions of farmers. In 1932-33, to provide long term finance, the Land Mortgage Bank was registered in the State. Such measures provided a great fillip to the movement in the State.

Thus the movement made much headway in Vadodara district even prior to Independence, on account of active State patronage : but in the backward areas of the State, viz., Pandu-Mewas, Sankheda Mewas, and Chhota Udepur State, the movement did not make much progress due to dearth of right type of personnel for managing the affairs of co-operative societies.

After the State's merger into Bombay State from 1st May, 1949, the policies pursued by the Bombay Government were enforced for gearing up new tasks of providing short-term finance to all credit-worthy agriculturists. Co-operation was accepted as an ideal means to achieve the goal of a socialistic pattern of society. Large amounts were assigned for the

development of co-operative movement in the respective Five Year Plans. The successful working of the co-operative societies also created confidence in the people about their usefulness.

In the context of this historical background, working of the credit societies-agricultural and non-agricultural is reviewed below.

Agricultural Credit Societies

These societies play a very important role in the rural economy dominated by agriculture and the movement was introduced in India primarily to solve the problem of agricultural finance. Though the movement has been experimented successfully in other fields besides agriculture, like housing, consumers', fishing, leather tanning, forest labour, etc., the credit societies still dominate the entire co-operative spectrum. In order that these societies play significant role in the life of agriculturists, the concept of service co-operatives was introduced in 1959. Besides providing credit, these societies supply seeds and manures, agricultural tools and implements and run the consumer stores.

In this district, the agricultural credit societies have made a commendable progress. When the First Five Year Plan was launched in 1951-52, there were 359 agricultural credit societies. By 1955-56 their number rose to 389 and further up to 548 in 1960-61 and 670 in 1972-73. Thus the progress in organising societies is the most spectacular. An analysis about the working of these societies during the last seven years (1966-67 to 1972-73) is briefly discussed below.

STATEMENT VI-5

Working of Agricultural Credit Societies, 1967-73

(Rs. in thousand)

Year 1	Number of Societies 2	Member- ship 3	Share Capital (Rs.) 4	Working Capital (Rs.) 5	Depo- sits (Rs.) 6	Reserve and other funds (Rs.) 7	Loan advances (Rs.) 8	Over dues (Rs.) 9
1966-67	689	78,779	14,707	69,735	5,911	4,286	50,457	5,431
1967-68	692	97,000	17,303	16,912	6,019	4,759	48,888	5,573
1968-69	702	100,000	19,026	82,120	7,850	10,187	55,360	9,848
1969-70	676	101,000	18,817	91,983	7,699	6,307	64,326	10,786
1970-71	673	108,000	19,964	109,096	10,339	7,133	80,494	18,529
1971-72	650	114,000	22,535	127,845	9,497	8,106	123,028	14,226
1972-73	670	109,000	26,276	191,990	12,026	9,911	130,295	21,367

Source :

District Registrar, Co-operation and Marketing, Vadodara District, Vadodara.

The statement reveals that though the number of societies have remained more or less steady, their performance during this period is noteworthy. Their membership went up from 78,779 to 1,09,000 in 1972-73. The share

capital increased from Rs. 1,47,07,000 to Rs. 2,62,76,000, working capital reached Rs. 19,19,90,000, deposits increased from Rs. 59,11,000 to Rs. 1,20,26,000, and reserve and other funds rose from Rs. 42,86,000 to Rs. 99,11,000. The all round increase in capital is reflected in the lending by these societies. From Rs. 5,04,57,000 the advances reached Rs. 13,02,95,000. It is quite likely that overdues have also *pari passu* risen. In lean and scarcity years, the societies were required to advance liberally. On the whole, the performance of these societies is in tune with the development concept of the country's economy.

Non-Agricultural Credit Societies

Non-agricultural credit societies play an important role in the life of small traders, salary earners, artisans, etc., and are usually situated in urban and semi-urban areas. The urban co-operative banks, urban thrift and credit societies, salary earners' societies, etc., are included in this group of societies. The urban co-operative banks are assuming a greater importance day by day, in the context of spiralling prices and difficulties faced by the persons in the lower and middle income groups. Such societies have made a significant progress in this district. There were 21 urban co-operative banks in the district in 1972-73, with a share capital of Rs. 6,002 thousands, working capital Rs. 81,490 thousands, deposits Rs. 64,322 thousands and reserve and other funds totalling Rs. 4,540 thousands. In 1972-73, they advanced loans to the tune of Rs. 22,125 thousands. These figures show their popularity and hence the progress achieved by these banks in the district appears to be noteworthy.

The working of the non-agricultural credit societies including urban co-operative banks is reviewed below.

STATEMENT VI-6

Working of Non-Agricultural Credit Societies, 1966-73

(Rs. in thousand)

Year 1	Number of Socie- ties 2	Member- ship 3	Share Capital (Rs.) 4	Working Capital (Rs.) 5	Deposits (Rs.) 6	Reserve and Other funds (Rs.) 7	Loan Advances (Rs.) 8	Over dues (Rs.) 9
1966-67	138	47,815	5,458	42,759	31,944	3,296	26,606	1,145
1967-68	142	50,734	6,311	50,672	38,457	3,771	38,026	2,110
1968-69	150	52,608	7,019	59,527	45,194	4,211	47,885	3,087
1969-70	152	54,660	7,663	69,454	55,463	4,787	34,484	3,416
1970-71	162	57,439	8,757	79,429	63,607	5,139	46,037	1,999
1971-72	172	61,093	9,481	99,044	75,282	6,211	52,089	2,943
1972-73	184	64,808	10,697	119,574	91,657	7,498	49,032	3,115

Source :

District Registrar, Co-operation and Marketing, Vadodara District, Vadodara.

The statement reveals that the number of societies, share capital, working capital, deposits, reserve and other funds, etc., have recorded a big rise during the last seven years, 1966-67 to 1972-73. The share capital increased from Rs. 5,458 thousands to Rs. 10,697 thousands, deposits rose from Rs. 31,944 thousands to Rs. 91,657 thousands and reserve and other funds went up from Rs. 3,296 thousands to 7,498 thousands. These increases are reflected in the working capital which went up from Rs. 4,27,59,000 to Rs. 11,95,74,000. This shows increased interest of the people in co-operative enterprise. The position of overdues was a little more satisfactory in 1972-73 as compared to the year 1969-70.

Baroda District Central Co-operative Bank Ltd.

Till 1912 there was no central agency to meet the financial requirements of the credit societies. There was also no restraint on the recklessness of primary societies. In these circumstances, the Baroda District Central Co-operative Bank was registered in April 1913 with jurisdiction over the entire State. But, on account of organisational difficulties, separate banks were gradually organised for each of the constituent districts of the former Baroda State, viz., the Vadodara, Kadi (Mahesana), Amreli and Navsari.

Upto Independence, the bank had no branch offices. Its first branch at Karjan was opened in 1948. In 1950, the bank was recognised by the Bombay State as a full fledged central financing agency for the newly formed Vadodara district. Branches were then opened at Bodeli (1950), Savli (1950), Padra (1951), Dabhoi (1953), Sinor (1953), Vaghodia (1955), Pavijetpur (1955), Naswadi (1956), Chhota Udepur (1958) and Sankheda (1959). Thus by 1960, there were 12 offices of the bank including the head-office at Vadodara. In the next decade, 14 more branches were opened in the district at Tilakwada, Kawant, Bahadarpur, Jarod, Sadhli, Chandod, Karvan, Mobha Road, Masar Road, Desar, Bhadarwa, Samlaya, Choranda and Bajwa. Thus by 1970, the bank had 25 branches besides the head office. Five more branches were opened at Varnama, Valan, Mandala, Kosindra and Bhatpur by December 1973 making a total of 30 branches covering all important places in the district.

Since 1950-51 the bank has been pursuing a policy of granting short-term crop loans to farmers against personal security accompanied by a first charge on crops. The loan amount is fixed in accordance with production standards laid down by the bank for each crop. Short term advances against the mortgage of fixed deposits are given to individuals as well as to member societies. To facilitate marketing activities of co-operatives, the bank advances short term loans against mortgage of warehouses receipt for crops. Besides providing short and medium term loans to the co-operative societies, the bank also provides ancillary banking facilities in the urban and semi-urban areas.

Moreover, since 1954-55, the bank provided medium term loans for such purposes as bunding of land, land improvement, purchase of bullocks, cows and buffaloes, carts, implements, tractors, thrashers and oil engines, turbines and engine pumps, electric motors, repairs of wells, construction and erection of processing plants and machinery, etc. The bank thus took a lead in making advances for such variegated purposes.

The bank belongs to a mixed type of central banks and has both individuals and societies as members. However, no new individual members are admitted since 1960-61 following the directives from the Reserve Bank of India. According to the recommendations of All-India Rural Credit Survey Committee Report, land holdings are not treated as the only criterion for advancing loans, but lending policy has been linked with the production programme. Since 1956-57, the bank is receiving State loans, for contribution to the share capital of primary societies in the rural areas. Such contribution helps the latter to have a share in the effective management of rural societies. Loans are provided for implementing intensive farming schemes. Besides term loans, cash credits to the consumer stores and industrial co-operatives are also granted by the bank. The bank always stands by farmers in days of distress and difficulties like famines, floods, etc., and thus plays an important role in increasing the agricultural output. The following figures illustrate the commendable work done by the bank in the last sixty years.

Individual membership rose from 56 in 1914 to 1,435 in 1973, but the trend is declining as per the policy laid down by the Reserve Bank. However, the number of member societies rose from 17 to 7,313, share capital went up from Rs. 5 lakhs to Rs. 5 crores, paid-up capital went up from Rs. 23,000 to Rs. 234.62 lakhs, deposits rose from Rs. 52,000 to Rs. 847.06 lakhs and advances increased from Rs. 68,000 to Rs. 1,415.68 lakhs. Still further, its working capital stood at Rs. 1,802.19 lakhs in 1973 from a meagre amount of Rs. 81,000 in 1914. Thus its role in meeting the credit requirements of member societies and individuals is noteworthy. Its impact on the growth of co-operative movement as a whole is thus remarkable.

It is needless to say that such progressive policies of the bank have helped farmers considerably in raising agricultural production. The bank celebrated its Golden Jubilee in the year 1963.¹

SAVINGS COLLECTIONS

Insurance

Insurance agencies doing insurance business also play an important role in tapping a portion of the public savings in the form of insurance premia.

¹ The District Central Co-operative Bank Ltd., Vadodara.

With the nationalisation of life insurance business in 1956, the Life Insurance Corporation of India has become the foremost and the largest single agency doing life insurance business in India. It was constituted by a Parliamentary enactment in 1956 and the Corporation officially started functioning from September, 1956. Since this date, all insurance companies, Indian and foreign ceased to carry on life insurance business in the country.

In the organisational and administrative set up of the Corporation, Vadodara district is placed under the charge of the Surat Division, Surat. By the end of 1972-73, there were 903 agents who were canvassing for the life business in the district.

During the quinquennium, 1968-69 to 1972-73, the Corporation issued 53,494 life policies of various categories valued at Rs. 4,540 lakhs. The total premium collected during this period amounted to Rs. 1,114.86 lakhs.

Small Savings

Apart from commercial and co-operative banks and societies, the agencies doing the work of collection of small savings are the Post Offices who, by their net work extending even in rural areas, help in the mobilisation of savings through a variety of schemes drawn up by the Government of India.

One of the ways to combat inflation is to reduce the available money supply with the public. In this sphere small savings play a significant role as they attempt to withdraw excess purchasing power from the public by encouraging the habit of thrift among the people. Furthermore, the realisation of amounts far in excess of sums originally invested at the end of a stipulated period acts as a powerful inducement to the public at large, who are tempted to economise and set a part of their income for such investments.

A beginning in this direction was made during the First World War period (1914-18), when the Government of India introduced the Postal Cash Certificates. During the World War II (1939-45), the Government of India started in 1943 the Post Office National Savings Certificates for the above purposes.

There was rise in the incomes during the War period. Prices had increased considerably due to increased spending for War purposes. Further, Planning was introduced in the country after Independence. Large resources were, therefore, needed for investments in agriculture, industry etc. The Government of India, therefore, launched a series of Small Savings Schemes with handsome interest rates to attract people to invest. The schemes

in existence at present are indicated below together with their gross collections during the year 1971-72 and 1972-73 :

Small Savings

Sl. No. 1	Particulars 2	1971-72 (Rs.) 3	1972-73 (Rs.) 4	Total (Rs.) 5
1	Post Office Savings Bank	1,54,68,000	1,96,53,000	3,51,21,000
2	Cumulative Time Deposit Scheme	24,30,000	28,52,000	52,82,000
3	National Savings Certificates	38,69,000	32,31,000	71,00,000
4	Post Office Recurring Deposits	8,82,000	13,22,000	22,04,000
5	Post Office Time Deposit Scheme	1,11,95,000	1,36,97,000	2,48,92,000
6	Public Provident Fund	2,56,000	3,26,000	5,82,000
	Total	3,41,00,000	4,10,81,000	7,51,81,000

It may be stated that Government of Gujarat awarded Rs. 1,00,000 as ad-hoc grants in both these years to the district for exceeding the target fixed for it. Moreover, the Gujarat Refinery received a running shield for achieving the highest amount of investments in the pay-roll schemes among all the establishments in the State of Gujarat in the year 1971-72. The Chhota Udepur and the Naswadi talukas were awarded running shields respectively in the year 1971-72 and 1972-73 for highest savings collections in the district.

In the year 1973-74, the district stood fifth among all districts in the State and the target was exceeded by 30 per cent, (as against the target of Rs. 165 lakhs, the district collected Rs. 214.72 lakhs under small savings).¹

Private and Public Limited Companies

Besides the agencies doing the work of collection of savings from the public discussed above, private and public limited companies also attract the public to invest part of their savings for conducting such economic activities as manufacture, trade and transport, etc. Company finance thus constitutes an important aspect in the study of financial resources in the economic structure of a district.

Due to its geographical position and net work of transport facilities, Vadodara city has become one of the most important centres of trade and industry in recent times. A number of companies have been established in

1. *Gujarat*, (Weekly), 18th May, 1974.

the private and public sectors. At the end of 1973, there were 290 private limited companies registered in the district. Of these, 14 were registered prior to Independence. There is thus a tremendous growth of registered companies after Independence. It is needless to say that most of these companies are situated in the city. Another curious feature is that a member of benefit companies known as chit fund companies were registered in the district. They are becoming more and more popular day by day as they collect the savings from the public and disburse the amount as short term loans to their customers according to lot system operated on specific days in each month.

There were in all 51 public limited companies in the district, of which 20 were registered prior to Independence. The first was the Alembic Chemical Works Co., Limited, which was registered as far back as 1907. The Bank of Baroda, one of the leading banks of the present day, was registered in 1908. The following statement shows classification of the companies according to the nature of work and their paid-up capital.

Registered Companies, 1973

Sl. No.	Type			Paid-up Capital Number (In thousand Rs.)	
1	2			3	4
<i>A—Private Limited Companies</i>					
1	Manufacturing	..	..	140	4,96,318
2	Trading ..	..	..	40	8,846
3	Financing	..	..	37	6,607
4	Construction	..	..	3	1,184
5	Others ..	..	..	70	N. A.
	Total ..	..	..	290	5,12,955
<i>B—Public Limited Companies</i>					
1	Manufacturing	..	..	47	3,08,654
2	Trading ..	..	..	2	567
3	Finance ..	..	..	2	26,600
	Total ..	..	..	51	3,35,821

N. A. = Not available.

The prominent among the private limited companies is the Indian Petro-Chemicals Limited. The leading public limited companies are the Alembic Chemicals, Alembic Glass, Jyoti Limited, Gujarat State Fertiliser Company and the Gujarat Refinery.

FINANCIAL ASSISTANCE TO INDUSTRIES

The industrial picture of India was far from satisfactory prior to Independence, as the country was dominated by the foreign power. The country was treated as the market for the inflow of finished products from Great Britain. The railways which were laid down in the country, apart from attempting industrialisation of the area served, helped export of the raw-materials from the country through the port towns. Barring cotton textiles and to a certain extent pharmaceutical industry, there were no other large industries worth the name. Not that entrepreneurial skill was lacking in the country, but the diversification of industries could not take place due to a number of factors.

However, the Second World War served as an incentive to industries. After Independence, the existing dependence on foreign countries in respect of finished goods was to be ended. With this end in view the Government of India formulated a policy resolution styled the Industries (Regulation and Control) Act in 1948 under which the industrial policy of the country was outlined.

For a rapid industrialisation in the country, provision of finance and technical know how was *sine qua non*. Therefore a bold step was taken by the Government of India by setting up the Industrial Finance Corporation for providing capital to large industries like mining, power, etc. Soon thereafter a score of others were established in the country for channelling private and foreign capital into industrial expansion. The institutions established by the Government of India for providing capital, technical assistance, etc., to the large, medium and industries are the National Industrial Development Corporation, the Small Scale Industries Corporation and the Industrial Development Bank. The Industrial Credit and Investment Corporation was also established to provide finance to the private sector industries only.

The State Government established financial corporation in their respective States on the lines of Industrial Finance Corporation. In the Gujarat State, Gujarat State Financial Corporation was the fore runner among other institutions in the field. Thereafter the Gujarat Small Industries Corporation, the Gujarat Industrial Development Corporation, Gujarat Industrial Investment Corporation and the Gujarat Industrial Co operative Bank were set up by the State Government for providing finance, technical know-how and machinery on hire purchase for rapid industrial expansion in the State.

The financial assistance and other services provided by these institutions All India and Gujarat State in Vadodara district are detailed in the following statement.

STATEMENT VI.7
Financial Assistance to Industries, 1973

(RS. IN LAKHS)					
Sl. No.	Name of Institution	No. of units assisted	Type of units assisted	Loans sanctioned Rs.	Remarks
1	2	3	4	5	6
<i>A—State Government Units</i>					
1	Gujarat State Financial Corporation, Ahmedabad.	232	Stone quarrying, manufacture of textile, woodwork, paper and paper products, leather, fur and rubber products, chemicals, non-metallic minerals, electrical equipments, transport, catering, etc.	608.84	
2	Gujarat Industrial Investment Corporation, Ahmedabad.	148	Industrial and photographic chemicals, carbon steel wires, doul. pins, jig. drill, electric motors and pumps, inorganic chemicals, radio equipments, textile machinery, biscuits, etc.	600.97	
3	Gujarat Small Industries Corporation, Ahmedabad.	12	Machinery on higher-purchase.	7.44	
4	Gujarat Industrial Cooperative Bank, (Vadodara branch).	..	..	10.00	
5	The Gujarat Industrial Development Corporation.	..	..	..	Runs an industrial estate at Makarpura Vadodara.
<i>B—Central Government</i>					
1	Industrial Finance Corporation of India, New Delhi.	4	Units manufacturing special types of wires, chemicals, fertilisers, ball and roller bearings, etc.	282.64	
2	Industrial Credit and Investment Corporation of India, Bombay.	25	Units, manufacturing, medicines, chemicals, menthol, metallised paper, fertilisers, tractors, wired, glass, electric motors and generators, pharmaceuticals, glass, vials bottles, textile mills, ball and roller bearings, etc.	1,398.812	
3	Industrial Development Bank of India, Bombay.	165	Manufacture of packaging materials bleaching agents, metallic tubes, dolomite powder, drugs and chemicals.	3,781.81	
4	National Industrial Development Corporation, New Delhi.	1	Textile Mills.	27.81	

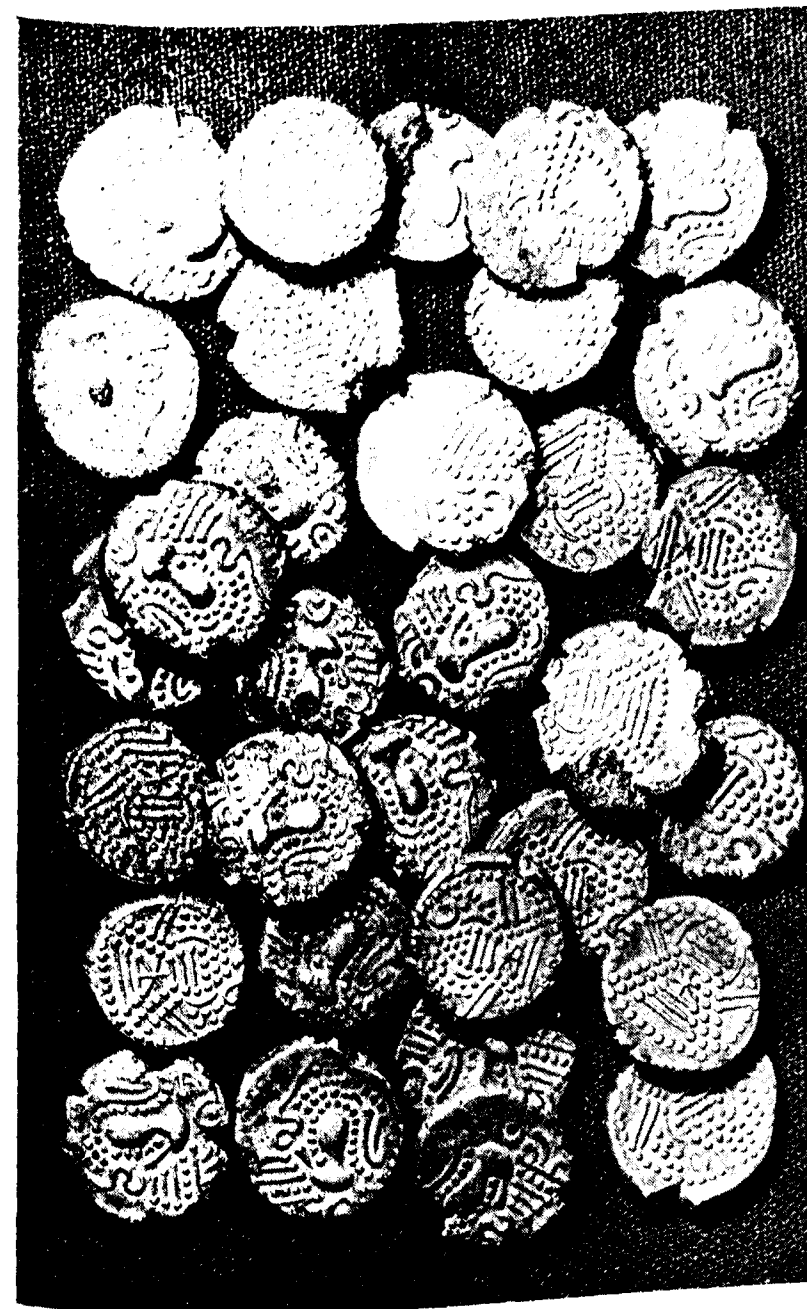
Source : Compiled on the basis of data supplied by respective institutions.

CURRENCY AND COINAGE

Silver rupees and copper coins called *dam* issued by the Mughal emperors were legal tenders in Gujarat. The earliest coin struck was issued normally under the authority of Shah Alam II at the close of the 18th Century.¹ After the fall of the Mughals, the Nawabs and other kings in Gujarat assumed sovereign powers and issued their own coins. After the establishment of Gaekwad rule at Vadodara, its rulers struck their own coins. During the rule of Damajirao, there existed a mint at Kheda which was transferred to Pettad, when Kheda passed under the British in 1803. A mint was also started at Vadodara, the capital town. The silver coins consisting of rupee, half-rupee, quarter rupee and two anna bits were known as *Siyashai* or more commonly called *babashai* rupees, presumably because the regent Fatesinh was also known as Babasaheb. The name *Siyashai* might have been derived from Maharaja Sayajirao I. Some ascribe the term *babashai* to Babaji Appaji, a Commander of the State's army. The rupee issued by Sayajirao I was of pure silver and weighed $11\frac{1}{4}$ *masa*. He purchased those rupees and issued new coins weighing $11\frac{1}{4}$ *masa* wherein base metal was added. This resulted in a discount between old and new coins. Before the rule of Anandrao Gaekwad (1800-1819), coins did not contain the name of the ruler in *balhodh*. During Govindrao's time the coins bore both *persian* and *balhodh* legends which read *mhalsakant* or *martand*, the tutelary deity of Gaekwad. Besides, the first initials of ruler's name were also inscribed on coins. These rupees were called *martandshai* or *anandshai*. The successive rulers replaced their first initials on these coins. It was during the time of Sayajirao III that a change was introduced. Instead of crude coins, those issued by him were more shapely and contained a facsimile of the ruler's portrait and words like "Shrimant Sarkar Sayajirao Gaekwad Senakhas Khel Samsher Bahadur" on the obverse and 'Badode Rajya' a sword, *Samvat* year and State emblem on the reverse were inscribed on the coins.

Till 1890-91, the mint was of the crudest type employing little or no machinery. The coins were therefore defective and there was no uniformity of weight. In consequence of the crudeness of the rupee, it was much counterfeited. To remove the defects, machinery for striking silver coins of superior quality was imported from Europe and installed during the year 1890-91. Though the intrinsic value of the *babashai* or *siyashai* rupee was equal to 13 annas and 11 pies in the British currency, it fluctuated with the latter and ordinarily 113 to 120 *babashai* coins were exchanged for 100 British coins. But during the years of plague and famine towards the close of 19th century, the rate of exchange was higher. It had once gone upto 148. Such heavy fluctuations in the rate of exchange caused a great loss to the merchants and trade with Vadodara became difficult. In view of these difficulties, it was decided in the year 1900, under arrangement with

1. *Imperial Gazetteer*, (1908).



A hoard of Gadhaya Coins
(By Courtesy—Directorate of Museums, Vadodara)



Details of Gadhaya Coin (Obverse)
(By Courtesy--Directorate of Museums, Vadodara)

the circulation and after 1961 the decimal coinage remains the legal tender. At present coins are issued in the denominations of 1, 2, 3, 5, 10, 20, 25, 50 paise and one rupee and currency notes in the denominations of 1, 2, 5, 10, 20, 50, 100 and 1,000 rupees.¹

B—Trade and Commerce

In order to get a proper perspective of trade in the past in the Vadodara district, it is necessary to have an idea of its former course and direction. A review of the conditions of trade and commerce obtaining in the past is briefly given below.

FORMER COURSE

In the past, there was dearth of made roads and trade was mostly carried on the old lines of traffic which, in majority of cases, were merely earthen tracks. Vadodara was connected by rail to Bharuch in the south, Kheda district in the north, and Panch Mahals in the east. The hinterland comprising north Gujarat upto Saurashtra, south Gujarat upto Bombay and Rajasthan and Malwa (Madhya Pradesh) in the east was served by the railways, to which trade of the district was extended. Further Okha port belonged to the Gaekwad and all import trade was carried on through that port, so that the State could get benefit from import duties. However, exports trade was carried on through Bombay Port only.

The State granted concessions in respect of taxes and cesses on trade by either reducing or by abolishing such obnoxious levies. The State adopted several measures to give a fillip to the trade. In 1905, a separate branch for commerce, industry, agriculture and customs was opened. In 1906, the office of the Economic Adviser was created and converted into the Directorate of Commerce and Industry in 1907. In 1909, the Department of Commerce and Industry was bifurcated from the Revenue Department and was placed under the Dewan.

As a result of all these measures, trade, commerce and industry received great impetus in the State. The former *Baroda State Gazetteer* (1923) gives interesting details about the important trade centres in the district as shown below.

Vadodara was the chief market and next to it was Chhani. The chief articles of trade were cotton, grain and other agricultural produce. The cotton ginned and pressed at Itola was exported to Bombay. Villagers came to the city with cart loads of *bajri*, *tuver* and other pulses and fodder, which they sold to the grain dealers and purchased cloth, grocery and other articles

1. The Government of India demonetised currency notes of the value of Rs. one thousand and above with effect from January, 1978.

for household use in return. Kolis, Harijans and other labouring classes from the neighbouring villages brought fuel, grass and other articles, from the proceeds of which they purchased rice, oil and articles of domestic use.

The silken cloth manufactured at Sinor was exported to Ahmadabad and other places, whereas Khadi from Barkal was sent to Ahmadabad. The chief articles of trade were cotton and other agricultural produce.

In the Sankheda taluka trade consisted of agricultural produce. The wooden furniture articles prepared by the *Kharadis* were largely exported.

In the Karjan taluka trade was confined mainly to cotton, cloth and grain. Cotton was made into bales and exported to Bombay. Grains were imported from outside the district.

In Tilakwada the trade was confined to the agricultural produce only. As cotton was grown on a large extent, two ginning factories existed in Tilakwada. Moreover, bamboo baskets and other materials were sold in adjoining areas.

In the Padra taluka, the local trade consisted of cotton and grains. Vegetables of the taluka found an easy outlet in the city of Vadodara.

In the Savli taluka, there were ginning factories at Samlaya, Khakharia and Desar Road (Kadachhla) villages. Samlaya had two presses for the manufacture of cotton bales which were exported to Bombay. Savli was famous for its snuff and rice and was also great trade centre of agricultural produce and cattle.

Trade in Vaghodia taluka was confined to agricultural produce only.

The former Gazetteer also gives useful information about import and export trade of the district, as narrated below.

There was a large yield of cereals and pulses, oilseeds, cotton, tobacco and other crops. Most of the foodstuffs were consumed locally, but the commercial crops such as oil-seed, cotton and tobacco were exported either to other parts of India or foreign countries.

The staple products of the district were cotton, tobacco, and the *mahuda* flower, which formed the chief exports. Cotton, from *kanham*, was largely sent to Bombay. The flowers of the *mahuda* tree, wheat and timber were brought in carts to Sankheda and Bahadarpur, and thence shipped by rail to Jambusar, Petlad and Khambhat (Cambay). *Mahuda* flower, sugarcane and such other field or garden produce and timber, bamboos, corn and other articles were brought to Chandod in small country boat from Bharuch, Surat

and other ports and then transported inland by train. Imports from Bombay were chiefly rice, cloth and machinery. Oil, *ghee*, and *mahuda* flowers came from Godhra and castor-oil seeds and manufactured silk and articles of luxury were imported from Ahmadabad.¹

This is, in a nutshell, history of development of trade and commerce in the region in the past. However, after Independence quite a new shape has been given to national economy. One of the important factors which has pushed up the trade after the Independence is the development of roads and transport. National Highway No. 8, *i. e.*, Ahmadabad-Delhi passes through this district and links the district headquarters with important centres of trade and industry. Similarly important centers in the district are situated on the State Highways. Another important factor which has encouraged the trade and commerce is the development of commercial and co-operative banking. An idea about the course of trade of the district after Independence, which is greatly diversified, can be had from the following narration.

Imports

At present, the imports in the district consist of the following categories. Among cereals and pulses, rice gram, wheat, *jowar* and peas are imported from other parts of Gujarat and from Punjab, Tamil Nadu and Madhya Pradesh. *Bajri* is imported from Kheda and other districts of the Gujarat State. Groundnut oil is imported from Bombay and Saurashtra. Fruits, dry fruits such as dates are imported from Porbandar, Ahmadabad, Bombay, etc., potatoes come from Banaskantha and Farukabad, and onions from Saurashtra. Besides the local variety, alphonso and other superior qualities of mangoes are imported from Valsad, Bilimora, Pardi and Bombay. Among the different varieties in textiles, cotton *sarees* are imported from Ahmadabad and Bombay, handloom *sarees* from Madras and Khambhat, Banarasi *sarees* from Banaras and Delhi. Cotton cloth is imported from Ahmadabad and Bombay, Woollen cloth from Punjab, Uttar Pradesh, Delhi, and Bombay; readymade garments are purchased from Bombay and Ahmadabad; stationery articles such as fountain-pens, ink, pencils, pins, etc., from Ahmadabad and Bombay. Grocery items like tea and coffee are imported from Bombay and Calcutta, salt come from Kheda, and Saurashtra and miscellaneous articles such as handware and metals are imported from Bombay, medicines are also imported from the centres of manufacture like Bombay and Calcutta, ironware and tinware are brought from Bombay and Ahmadabad, building materials like cement from Sevalia, Dwarka, Porbandar and Sikka, while leather goods are imported from Maharashtra and Uttar Pradesh.

Exports

As compared to imports, exports are fewer. Vadodara district transports cottonseeds and other oilseeds to Bombay and Ahmadabad. Medicines and

1. DESAI G. H. AND CLERKE A. B., *Gazetteer of Baroda State*, Vol. 1, (1923), p. 387.

chemicals manufactured at Vadodara are sent all over the country. Colours and glass are exported to various centres in the country. Dabhoi is a famous centre for brass and copper vessels, which are sent even to Bombay, Ahmadabad and other centres. On account of recent development of industries in the district, fertilisers, engineering goods, electric motors and goods, and centrifugal pumps, refined oil and other petroleum products form part of exportable items of the district. Flourspar, fluoride and green marbles used for decorative elements in buildings, constitute other items of exports. Woollen cloth manufactured in the local woollen mill is also exported outside the district. Woollen furniture manufactured at Sankheda is famous not only in the whole country but outside its frontiers. Vegetables from Padra and other centres are sent outside the district.

TRADE THROUGH RAIL

In the composition of inland trade, railways help considerably in the movement of goods from one destination to another as well as through important trade centres. During the year 1973, the tonnage of goods passing through the railway wagons both originating and terminating amounted to 2,67,710. Of these 1,60,730 tonnes were exports and 1,06,980 tonnes imports. This shows that the district has a large export potential. The stations which handled large tonnage were Vadodara (1,22,053 or 45.60 per cent), Padra (19,239 or 10.92 per cent), Dabhoi (15,481 or 5.78 per cent), Bodeli (15,099 or 5.63 per cent), Mohha Road (12,210 or 4.56 per cent), and Samlaya (11,215 or 4.18 per cent). These stations together handled 76.77 percentage of goods.

The district has important industrial minerals like flourspar, dolomite, quartz, asbestos, manganese ore, sandstone, lead, calsite, ferrous metal, dolomitic limestone, etc. There is a very good scope for the exploitation and utilisation of the mineral and raw materials available in this district.

REGULATED MARKETS

Gujri System

The former Gazetteer mentions that there existed the system of weekly market or bazar called *gujri* in the city of Vadodara. The *gujri* was held from 8—12 a. m. every Friday. Cattle and field produce and articles of daily use such as metal and earthen pots, brooms and cheap varieties of cloth, etc., were brought for sale. There were no grain and vegetable markets in the entire State in the beginning of the present century and vegetables were carried in baskets by women to different parts of the town and sold in exchange for grains.

Historical Background of the Establishment of Regulated Markets

In the past an Indian agriculturist was born in debt, lived in debt and died in debt. Subsisting on a small fragmented piece of land, which was

often mortgaged to a local *sahukar*, the farmer, because of his traditional ignorance, became an easy prey to the malpractices and avarice of the money-lenders, whether it related to borrowings or sale of farm produce. To add further to his miseries, the great depression of 1929 A. D., brought down prices of farm produce precipitately.

To help him in such an unfortunate position, the Royal Commission on Agriculture was appointed in 1928. It suggested establishment of regulated markets to give the farmers a fair deal in respect of sale, weighment, market charges, etc. The State Government appointed a Special Officer to conduct comprehensive surveys, study the conditions of marketing and financing of crops, and advise the Registrar of Co-operative Societies and the Directors of Agriculture and Commerce with a view to improving the machinery of marketing. The question of establishment of regulated markets for obtaining equity in the bargaining power of agriculturists was also considered by Government.

Regulated Markets in the District

In the meantime, the Government of Bombay enacted the Bombay Agricultural Produce Markets Act in 1939. This legislation was adopted and applied to the State areas in the same year. The first regulated market was established at Bodeli in the year 1939. Later on such markets were established at Padra (1956), Savli (1957), Vadodara and Karjan (1958), and Dabhoi (1959) after the State's merger in 1949. After the formation of Gujarat State a Tobacco Market was also specially established at Vadodara in the year 1960. The regulated market at Naswadi was established in 1952 and at Chhota Udepur in 1967. In 1963 the Government of Gujarat repealed the Bombay Agricultural Produce Markets Act, 1939 and replaced it by passing the Gujarat Agricultural Produce Markets Act, 1963. All the regulated markets in the State are now governed by this Act. The total number of regulated markets was 9 in 1972-73.

Each regulated market is looked after by a market committee which is constituted in accordance with the provisions of the Act and has generally 17 members, representing the agriculturists, the traders, co-operative societies, nominees of the respective local body and the Government.

The table below shows the details about the constitution of regulated markets in the district and commodities regulated in each of them.

STATEMENT VI.8 Regulated Markets

Sl. No.	Name of the Committee	Name of the		Market Area	Regulated Commodities	Date of Establishment
		Main Yard	Sub Yard			
1	2	3	4	5	6	
1	Bodeli	Bodeli	Bahadrapur Kaledia Jetpur	Sankheda and Jabugam Talukas	Groundnut Cotton Fruits	1939
2	Dabhoi	Dabhoi	Karvan Waghodia	Dabhoi and Waghodia Talukas	Cotton Groundnut	1959
3	Vadodara	Hathikhana Vadodara	Mogalwada and Khanderao Market Vadodara	Vadodara City and Taluka	Paddy, Rice, Bajri, Tur, Cotton, Groundnut, Fruits, vegetables and Cattle	1958
4	Padra ..	Padra	Mobha Road Masar Road	Padra Taluka	Cotton, Tur, Maish, Wal, Gram, Rice, Til, Bajri, Tur-dal and vegetables	1956
5	Savli ..	Savli	Samalaya Sandhasal Desar	Savli Taluka	Cotton, Groundnut, Paddy, Tur, Gram, Jowar and Til	1957
6	Karjan	Karjan	Sachli Sinor	Karjan and Sinor Talukas	Cotton	1958
7	Vadodara Tobacco market	Fathapura Vadodara	..	Vadodara District and Kalol, Godhra and Lunavada Talukas of Panch Mahals	Tobacco	1960
8	Naswadi	Naswadi	Tankhala	Naswadi and Tilakwada Talukas	Cotton and Groundnut	1962
9	Chhota Udepur	Chhota Udepur	..	Chhota Udepur Taluka	Groundnut and Cotton	1967

Source : Census 1971, District Census Handbook, (1973), Part X-3-1, Vadodara District, p. 19, and Lead Bank Survey Report on Baroda District, (1971), pp. 206-07

The Composition of Markets

The traders, general commission agents, brokers, weighmen and *hamals* constitute the main market functionaries and their strength in each market during 1970-71 was as follows: Bodeli (784), Dabhoi (375), Vadodara (3,630), Padra (720), Karjan (332), Savli (723), Naswadi (318), and Chhota Udepur (444). These persons held valid licences issued by each market committee on payment of prescribed fees.

Market Charges

The statement that follows gives details of market charges in some of the regulated markets:

Karjan-Sinor

Commodity 1	Weighing		Commission		Brokerage	
	Unit 2	Charges 3	Unit 4	Charges 5	Unit 6	Charges 7
Cotton ginned and unginned.	Per cent .. Per truck	0.25 2.00	Per Rs. 100	0.50	..	..
Wheat, Juar, Bajra and Taper and groundnut-shelled, unshelled.	Per 20 Kg.	0.04	Per Rs. 100	1.00	Per 20 Kg.	0.02
Cotton unginned	..	..	..	..	Per Rs. 100	0.25
Cotton ginned	..	..	..	..	Per bale	0.50

Bodeli

Commodity 1	Weighing		Commission		Brokerage	
	Unit 2	Charges 3	Unit 4	Charges 5	Unit 6	Charges 7
Cotton unginned	Per cart	0.30	Per Rs. 100	0.40	Per Rs. 100	0.10
	Per Vehicle per quintal	0.05	Per Rs. 100	0.37	Per Rs. 100	0.10
Cotton ginned	Per bale	0.25	..	..	..	..
Cotton ginned and unginned.	..	..	..	..	..	..
Groundnut shelled and unshelled.	..	..	Per Rs. 100	0.75	Per Rs. 100	0.20
Groundnut shelled	Per bag	0.08	..	..	..	..
Groundnut unshelled	Per bag	0.10	..	..	..	..

Chhota Udepur

Commodity 1	Weighing		Commission		Brokerage	
	Unit 2	Amount 3	Unit 4	Amount 5	Unit 6	Amount 7
Cotton ginned	Per bale	0.25	Per Rs. 100	0.37	Per Rs. 100	0.10
Groundnut shelled, unshelled	..	..	Per Rs. 100	0.75	Per Rs. 100	0.20
Cotton unginned	Per cart	0.30	Per Rs. 100	0.40	Per Rs. 100	0.10
	Per Vehicle and quintal	0.05	..	..	..	..
Groundnut shelled	Per bag	0.10	..	..	..	..
Groundnut unshelled	Per bag	0.05	..	..	..	..

Source : Annual Reports of the A. P. M. C. Karjan-Sinor, Bodeli and Chhota Udepur.

Transactions in Regulated Markets

During the year 1972-73 transactions in regulated commodities amounted to 26,77,691 quintals, valued approximately at Rs. 6,189.17 lakhs. The following statement shows arrivals of regulated commodities in each market.

STATEMENT VI.9
Transactions in Regulated Markets, 1972-73

(RS. IN LAKHS)

Sl. No.	Commodity Market	Cotton Quantity Quin-	Value Rs.	Groundnut Quantity Quin-	Value Rs.	Rice Quantity Quin-	Value Rs.	Bajri Quantity Quin-	Value Rs.	Rice (unhusked) Quantity Quin-	Value Rs.	Tobacco Quantity Quin-	Value Rs.	Miscellaneous Quantity Quin-	Value Rs.	Total Quantity Quin-	Value Rs.
		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	Bodeli	5,83,146	1,821	20,633	45	..	..	..	..	..	..	..	..	..	..	6,63,779	1,866
2	Dabhoi and Waghodia	3,36,154	1,083	1,200	2	..	..	..	..	..	..	..	..	..	..	3,37,354	1,085
3	Vadodara	18,022	10	1,88,310	331	96,326	206	69,552	80	10,504	14	..	..	2,24,765	145	6,07,479	786
4	Padra	21,254	62	..	..	..	..	17,736	21	..	..	..	..	1,28,086	158	1,67,076	241
5	Savli	2,05,958	34	2,399	2	3,270	54	..	..	..	..	..	..	2,208	2	2,13,826	92
6	Nasvadi and Tilakwada	68,049	121	1,850	0.17	..	..	..	..	..	..	..	..	..	..	69,899	121.17
7	Chhota Udepur	3,164	9	21,202	45	..	..	..	..	..	..	..	..	..	..	24,366	54
8	Karjan-Sinor	3,68,367	1,139	..	..	..	..	..	..	..	..	..	..	..	..	3,68,367	1,139
9	Vadodara (Tobacco)	..	..	..	..	..	..	..	..	..	..	2,85,545	805	..	..	2,85,545	805
Total		16,04,114	4,279	2,35,585	425.17	99,556	230	87,288	101	10,504	14	2,85,545	805	3,55,059	305	26,77,691	6,189.17

Source : The District Registrar, Co-operative Societies, Vadodara District, Vadodara.

The statement reveals that cotton was the chief commodity in all the markets. Secondly, except the Karjan-Sinor regulated markets groundnut was another important item of trade. The arrivals in cotton amounted to 16,04,114 quintals valued approximately at Rs. 4,279 lakhs or 22.55 per cent and 30-15 per cent of the total transactions in quantity and value respectively. Similarly groundnut arrivals were to the tune of 2,35,585 quintals valued at approximately Rs. 425.17 lakhs respectively. There is a separate market yard for tobacco at Vadodara where 2,85,545 quintals of tobacco valued at Rs. 805 lakhs was brought during the year 1972-73. Besides the sale of regulated commodities, cattle are also brought for sale at Bodeli, Vadodara and Chhota Udepur markets. People from the other parts of India visit the Bodeli market for seeing the actual working of the cattle market.

Facilities

In each market of this district, facilities such as light, water and storage are given to the sellers. In addition to this, in Vadodara market, facility of canteen is provided free to the agriculturists. The prices ruling the markets are published in important newspapers and broadcast from the All-India Radio, Ahmadabad-Vadodara. Similarly price-returns are furnished to the concerned authorities.

WHOLESALE TRADE

Wholesale trade is generally concentrated in the large towns and cities where needs of retailers, wholesalers and general public are met. The movement of goods in this district is generally carried out by motor trucks because it is economical. Vadodara, Bodeli, Dabhoi, Karjan, Padra, Savli and Chhota Udepur are the important wholesale trade centres in the district. At all these centres the practice of charging brokerage, quality allowance, weighing, etc., is in vogue and the charges are generally uniform in all the markets, with slight variations according to local conditions. A brief description of each of these centres is given below. These places also function as retail marketing centres.

Vadodara

Situated on the Bombay-Delhi and Bombay-Ahmadabad broad gauge sections of the Western Railway, Vadodara was capital of the princely house of Gaikwads and is the headquarter of the district, since its merger in 1949. Roads connect it with other taluka centres as well as places in the adjoining districts. It is a large wholesale trade centre for commodities like paddy, rice, wheat, maize, gram, bajri, tur and groundnut. The number of wholesale merchants in 1971-72 was 316. The total transactions exceeded Rs. 7 crores. The details of wholesale deals in other commodities like cloth, gur, groundnut oil, wood and timber, stationery, etc., are not available. Yet transactions in these commodities are of considerable magnitude.

Cotton, tobacco, *tur* and vegetables are the principal products which are exported to other taluka trade centres such as Karjan, Bodeli, Dabhoi, etc., while rice, wheat, *bajri*, *jowar*, sugar and tea are imported from other parts of Gujarat as well as from Punjab, Haryana, Bombay, etc., Vadodara is the main receiving and distributing centre for the whole district.

Bodeli

It is an important railway station on the Jambusar-Chhota Udepur narrow gauge section of the Western Railway. It is connected to other centres by means of State transport buses.

It has ginning factories and an oil mill. It exports charcoal and timber. It is well-known for wholesale trade in cotton, groundnut and castor seeds. The value of total transactions in these commodities was Rs. 14.60 lakhs to Rs. 5.42 crores in the year 1971-72.

Dabhoi

It is the headquarters of a taluka and is connected both by road and rail with Vadodara and other centres in the district and the State. Dabhoi is famous for its manufacture and sale of copper and brass utensils. A big chemical concern has also been established here. Cotton and groundnut are the chief commodities of wholesale trade and total transactions amounted to of Rs. 5.42 crores in the year 1971-72.

Karjan

It is another wholesale trade centre on the main broad gauge Bombay-Delhi, and Bombay-Ahmadabad, railway lines of the Western Railway. It is also connected by bus routes with Sinor, Padra, Vadodara and Dabhoi. The town is known as Miyagam Karjan. The principal crop of the area is cotton. The value of total transactions amounted to Rs. 2.12 crores in the year 1971-72.

Padra

It is the headquarter of a taluka and is situated on the Chhota-Udepur-Jambusar narrow gauge section of the Western Railway. It is also linked by road with other centres. It is famous for *tur* (pulses). There are five factories processing *tur*. Vegetables, fruits, *mug*, *val* and *tur* are chief commodities of the wholesale trade whose transactions amounted to Rs. 19.84 lakhs in the year 1971-72.

Savli

It is another wholesale trade centre and the headquarters of the taluka which is connected by roads and rail with other centres in and outside the district such as Halol in Panch Mahals. It is situated on the Dabhoi-Timba Road narrow gauge section of the Western Railway. The principal crops of this taluka are paddy, cotton, groundnut and *jowar*. Wholesale trade is carried on in these commodities. Their total transactions amounted to Rs. 4.15 crores in the year 1971-72.

Chhota Udepur

Once the capital of former State of the same name, it is a railway station on the Chhota-Udepur-Jambusar narrow gauge section of the Western Railway. It is now the headquarters of the taluka and of the sub-division. It has rich forests and exports forest products like timber, lac, gum, *timru*-leaves, *mahuda*-flowers, honey, etc. There is possibility of mineral wealth like manganese in this area. The main items of wholesale trade are timber, charcoal, *charoli* (name of a dry fruit), etc. The value of wholesale transactions was approximately Rs. 30.45 lakhs in 1971-72.

The following statement shows the commoditywise transactions in the trade centres.

STATEMENT VI.10
Wholesale Trade in the District

Sl. No.	Commodity	Vadodara Rs.	Bodeli Rs.	Dabhoi Rs.	Karjan Rs.	Padra Rs.	Savli Rs.	Chhoti Udapur Rs.	Total Rs.
1	2	3	4	5	6	7	8	9	10
1	Cotton	23,97,702	15,54,38,000	9,47,63,299	10,39,98,024	51,88,000	7,80,75,700	7,15,917	4,49,00,932
2	Groundnut	22,85,700	45,05,000	7,13,400	..	..	4,44,875	16,30,800	95,09,775
3	Vegetables	1,13,08,095	..	..	..	59,96,477	..	..	1,73,04,572
4	Tobacco	6,39,93,994	..	..	..	..	..	..	6,39,93,994
5	Paddy	12,45,700	..	..	..	..	6,61,900	..	19,07,370
6	Bajri	61,48,400	..	..	..	17,41,361	..	..	78,89,761
7	Jowar	..	..	..	..	..	29,912	..	29,912
	Total	8,73,79,531	15,99,43,000	9,54,76,699	10,39,93,024	1,29,25,838	7,92,12,387	23,65,717	56,58,36,316

Source : The District Registrar Co-operative Societies, Vadodara.

CHAPTER VI—BANKING, TRADE AND COMMERCE

The above statement reveals that the total value of transactions at the wholesale markets was Rs. 56,58,36,316. Out of these, Vadodara and Bodeli markets claimed nearly 50 per cent of the transactions during the year 1971-72. It is further revealed that cotton, tobacco, groundnut and vegetables are the principal products of this district.

NUMBER OF TRADERS

The following statement shows the number of persons engaged in the trading profession.

Sl. No.	Categories	Persons		
		1951	1961	1971
1	2	3	4	5
1	Total	23,019	27,878	28,377
2	Wholesale Trade	405	1,410	1,909
3	Retail Trade	19,967	24,711	22,088
4	Miscellaneous	2,647	1,757	4,380

Source : District Census Handbook, 1951, 1961 and 1971, Vadodara District.

The table shows that the number of persons employed in trade and commerce accounted for 4.47 per cent of the total working population in 1971. In terms of total population workers in this branch accounted for 1.92 per cent and 1.43 per cent respectively in 1961 and 1971 censuses. Further, during the last 20 years (1951-71) the number of workers increased by 23.27 per cent. The table further shows that those engaged in retail trade accounted for as much as 77.83 per cent of the persons engaged in trade and commerce, which shows the predominance of retail traders. Even among the retailers those dealing in essential commodities like food and clothing accounted for over 50 per cent of the retailers.

RETAIL TRADE

Retail trade is carried on by a large number of establishments in the urban and rural areas and cater to the needs of local inhabitants. These traders usually obtain their goods on credit generally from local wholesalers and settle bills periodically. Their stock in trade is limited and generally depends upon their financial condition and local demand. Retailers quickly replenish items which are in much demand among the people. The capacity of retailers in rural and semi-urban areas for keeping large stocks of goods is, in most cases, limited, on account of their limited financial resources and

maintain stock sufficient for their normal sales. But their counterparts in cities and towns, because of their better financial position and social status, are capable of keeping stocks in large quantities. The brisk season for business generally lasts from October to June, because the rest of the period is covered by monsoon, when people generally avoid celebrations of social functions like marriage, etc. However, dealings in *pan-bidi*, tobacco, etc., are normal throughout the year, but during festivals and on holidays, the *pan-bidi* sales are at the maximum. In other branches too, transactions in retail trade particularly are prominent during such festivals as the Holi, the Dassera, the Diwali and marriage season. Retail sales are usually on cash basis, but running accounts are opened and settled periodically in case of acquainted customers.

Retail trade is generally distributed in the following branches : (i) grocery shops selling cereals, pulses, spices, *gur*, groundnut and sesamum, oil, *ghee*, tea, coffee, condiments, dry fruits, baking soda, menthol crystals, saffron, catechu, *agrabatti*, etc., (ii) *pan-bidi* and tobacco shops, which are generally one-man establishments sell *pan* (betel leaves), *bidi*, cigarettes, cigars, match boxes, chewing tobacco, betelnuts, catechu, menthol crystals, etc., (iii) cloth and hosiery shops which deal in all kinds of textiles, in cotton, woollen, silk, and synthetic fibres of clothing such as shirting coating, *sarees*, *dhotis*, *malmal*, *chhint*, voiles and hosiery articles of all sorts and varieties, (iv) fuel and charcoal shops, (v) stationery and cutlery shops, (vi) fruits and vegetables shops, (vii) shops selling household utensils of brass, copper, aluminium, German Silver, and stainless steel, (viii) hardware and building materials, (ix) chemists, (x) sweetmeat and *farsan* shops and (xi) leather goods and footwear.

Retail marketing centres are situated in almost all the areas. As the population has increased and modes of communications have improved, retail shops have sprung up even in remote rural areas.

Among the retail trading centres, Vadodara occupies a pivotal place, being the chief distributing centre for the whole district, besides being a growing industrial city. Other retail markets are Bodeli, Dabhoi, Karjan, Padra, Savli, Chhota Udepur, Vaghodia, Tilakwada, Sinor and Naswadi.

CO-OPERATION IN WHOLESALE AND RETAIL TRADE

After the development of co-operative movement consequent upon the launching of the Five Year Plans, there has been a great expansion in the co-operative sphere. Trading is not now the sole monopoly of traders only. The co-operative purchase and sale unions, which form an important plank of co-operation, have taken to supply of essential commodities like food and clothing, besides supplying seeds, fertilisers, insecticides, tools and appliances to the farmers. Thus there is fusion of private traders as well as

co-operative organisations in this field. Their impact is not altogether insignificant. They have been instrumental in keeping a check on prices. During the year 1972-73, their sales amounted to as much as Rs. 1.43 crores.

FAIR PRICE SHOPS

On account of the exigencies of the Second World War, there was an abnormal rise in the prices of essential commodities like cereals, pulses, cloth, sugar, *gur*, kerosene, etc. The former Vadodara State had, therefore, controlled rationing regulating the distribution of essential consumers' goods, prohibiting hoarding, profiteering, etc., by issuing necessary orders in this behalf. Foodgrains were distributed through State authorised shops. The Civil Supplies Department was reorganised. The non official representation in the Civil Supplies and Savings Committee was enlarged with a view to reducing the grievances of the public. In the districts, Government controlled and aided agencies and private individuals managed cheap grain and fair price shops for the distribution of controlled articles.

The State also took steps to put an effective check on black marketing and hoarding of consumer goods, and any breach of the regulations was punishable under the law.

Post-Independence Period

However, prices have continued to rise even in the post-War (and post Independence) period causing greater hardship to the people. Except for a short pause in the year 1952, following the increase in Bank rate, and the lifting up of controls all throughout the country in 1954, the prices of essential commodities have continued to rise due to a number of factors.

After the formation of Gujarat State, the Government has introduced a system where under food-grains, groundnut oil and sugar are distributed under the family card system to the economically weaker sections of the population whereas persons whose incomes are liable to income-tax get only sugar on the card. These cards are to be registered with nearby fair price shop, authorised by Government. In the Vadodara district in the year 1973-74, there were 550 shops, which distributed wheat, rice, maize, gram and other commodities. The number of ration cards registered with these shops aggregated to 404,098. The scheme helped the poor sections by providing the coarse grains at cheaper rates and thus controlled the rates ruling the open markets.

Trade Associations

It is interesting to compare the merchants' associations of the past with the present ones. The former Gazetteer of the Baroda State furnishes very useful and interesting details on the subject, in the following terms.

Trade Guilds—Dealers in cotton, grain, groceries, etc., formed their own trade guilds distinct from their caste guilds. Every large village had its guild for each trade, but this guild was termed a trade guild (*dhandhanu mahajan*). The Vanias and Brahmans formed a *mahajan* to which other trade guilds were subordinate. The heads of each caste *shresthis* (*sheths*) were entitled to vote in case of disputes as regards trade or practice. In every town where there was a *mahajan*, there were also one or more *nagarsheths*, or mayors of the city, who were usually Vanias. The *Chakla-sheths* were traders in the guilds of those merchants in cloth, grocery, or grain, who were Vanias or Brahmans by caste. In case of artisans like goldsmiths, carpenters, etc., the caste panchayat also functioned as a craft guild. In all these guilds, castes occupied a prominent place.

There was a material difference between the authority of a *mahajan* and that of a trade or craft guild. The former was supreme and had authority over all trade guilds and caste panchayats, and the latter had only limited scope, i. e., the authority of trade guild extended over those who belonged to that particular guild.¹

A trade association in the modern sense of the term is an outcome of the recent past. Trade and commerce has become much diversified and interests and problems of each branch differ so very widely, that they defy any common solution. To bring about a harmony among members, to protect interests of trade in the face of Government legislation and to present a concerted and joint action, trade associations have been organised practically in all the branches of industry, trade and commerce. Above these, is a federal body called the chamber of commerce to which individual associations are affiliated. This august body streamlines the activities of member associations and puts forth general views to authorities and gives guidance as to the expansion of business.

That trade and commerce is one of the principal economic activities is universally accepted. Recognising the utility and importance of such organisations, the Central and State Governments nominate their representatives on the various committees and sub-committees appointed by them, and also invite the views of such bodies on many important economic problems such as taxation, fiscal policy, location of industry, licensing policy, etc.

Vadodara is fast emerging as a growing industrial centre. It is already a receiving and distributing centre for the whole of the district. Trade and commerce have considerably expanded since Independence. Therefore, it is natural that trade associations have been organised to look after individual branches of trade and industry. There are three federal bodies at Vadodara, viz., (i) the Federation of Gujarat Mills and Industries,

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, (1923), pp. 398-400.

(ii) Madhya Gujarat Vepari Mandal, and (iii) Federation of Small Scale and Village Industries. There are also twenty-seven other associations established at different centres in the Vadodara district. Out of these, 16 are found at Vadodara, 2 each in Tilakwada, Savli and Dabhoi, and one each in Pavi-Jetpur, Bodeli, Sadhli, Karjan and Padra, as seen from the following statement.

STATEMENT VI.11

Trade Associations

Industry 1	Trade and Commerce 2	Miscellaneous 3
1. Federation of Gujarat Mills and Industries, Vadodara.	1. Central Gujarat Chamber of Commerce, Vadodara.	1. Brick Manufacturers' Vepari Mandal, Vadodara.
2. Federation of Small Scale and Village Industries, Vadodara.	2. Baroda Sugar Merchants' Association, Vadodara.	2. Baroda Road Transport Association, Vadodara.
3. Baroda District Iron and Steel Registered Stock Holders' Association, Vadodara.	3. Mangal Bazaar Cloth Association, Vadodara.	3. The Baroda Hotel Owners' Association, Vadodara.
4. Rajasthan Metal Merchants' Association, Vadodara.	4. Baroda City Ready-made Cloth Merchants' Association, Vadodara.	4. The Padra Fruits and Vegetables Merchants' Association, Padra.
5. The Baroda Metal and Vessel Merchants' Association, Vadodara.	5. The Baroda Grain Merchants' Association, Vadodara.	
	6. Baroda City Timber Coal Merchants' Association, Vadodara.	
	7. Shri Baroda City Grain Merchants' Association, Vadodara.	
	8. The Retail Grain Merchants' Corporation, Vadodara.	
	9. The Wholesale Cloth Merchants' Association, Vadodara.	
	10. The Baroda Mill Gin Store Traders' Association, Vadodara.	
	11. The Baroda Cement Merchants' Association, Vadodara.	

STATEMENT VI-11--*concl'd.*

Industry 1	Trade and Commerce 2	Miscellaneous 3
	12. The Baroda Hard Ware Merchants' Association, Vadodra.	
	13. Savli Grain Merchants' Association, Savli.	
	14. The Savli Vopari Mahajan, Savli.	
	15. Shri Pavi-Jetpur Merchants' Associations, Pavi-Jetpur.	
	16. The Dabhoi District Cotton Merchants' Associations, Dabhoi.	
	17. The Dabhoi Cotton and Cotton Seeds Merchants' Associations, Dabhoi.	
	18. The Sadhli Cloth Merchants' Associations, Sadhli.	
	19. Shri Tilakwada Merchants' Associations, Tilakwada.	
	20. Shri Tilakwada Samagra Merchants' Association, Tilakwada.	
	21. The Bodeli Cotton Merchants' Association, Bodeli.	
	22. The Karjan Anaj Vopari Mahajan, Karjan.	

The aims and objects of these associations broadly are ; (i) to look after the interests of trade and commerce of the region and to help create harmonious relations amongst members, (ii) to arbitrate whenever possible in trade disputes and to study Government legislation affecting trade and commerce and to put forth their views to Government in this regard, and (iii) to collect and disseminate important statistics relating to industry, trade and commerce and undertake general economic activities for guidance of their members. A brief description about the Central Gujarat Chamber of Commerce is given below :

The Central Gujarat Chamber of Commerce—There was no federal organisation which could look after the interest of business community of Central Gujarat region. Though there were different associations in branch of trade looking after their sectional interests, they were not capable of representing their case in a concerted manner, nor were they effective in

guiding their members. Fiscal policies and laws relating to trade and industry were becoming complex, and the problems of diversified trade and commerce had also increased. Therefore, a need to establish a federal organisation in Central Gujarat area was keenly felt. The Central Gujarat Chamber of Commerce thus came into existence in 1960. Its membership increased from 209 in 1960 to 1,062 in 1973.

The aims and objectives of the Chamber are to promote and protect the interests of trade and commerce and industry and to arrange for the dissemination of information on different subjects relating to trade and industry and to undertake such activities which lead to the promotion of ancillary and incidental industry, trade and commerce.

The Chamber helps to increase the industrial growth in Gujarat. It invited experts to study the problems of the Dahej Port and suggested the measures for its development. It started an Industrial Information Centre in 1964 which helped in collecting details regarding schemes and projects. The chamber is represented on committees of Central and State Governments.

The chamber does not confine its activities to the interest of business community alone. In case of natural calamities it provides help to the affected. It has started "The Central Gujarat Chamber of Commerce Relief Fund" for this purpose. Another "Central Gujarat Lok Kalyan Fund" has also been created by the Chamber to help the poor and needy persons. It publishes a monthly bulletin which gives information relating to trade and industry and also reflects views of the Chamber on important topics like legislation, taxation, etc.

WEIGHTS AND MEASURES

The weights and measures prevalent in the former estates of Sankheda Mewas, Pandu Mewas, Chhota-Udepur and Baroda State are briefly described below :

Sankheda Mewas

In the estate of Sankheda Mewas, the units of weights and measures were similar to those in British provinces. For weighment of paddy '*pali*' measure was used, one maund was equal to $5\frac{1}{2}$ *pali*. Copper and brass utensils were weighed by '*ratal*', i. e., *lbs.*, where one *ratal* was equal to 16 ounces or 38 rupees of British India. 82 *ratals* were equal to two maunds. One *ratal* was equal to one *seer*. The Weights and Measures Regulation was looked after by the State. Only those weights containing State's stamp were used in transactions.

1. The Industries Officer, Vadodara District, Vadodara.

Pandu Mewas

The British system of weights and measures was in force except some peculiarities in weighment of cotton for which the unit 'bhar' was used for raw cotton and one *bhar* was equal to 24 maunds, one maund was equal to 40 *seers*, and one *seer* was equal to 40 rupees. The small coins of British India named rupee, half rupee, quarter-rupee and two *anni* (anna) bits were utilised for weighing gold and silver.

Chhota Udepur

In this State, the Weights and Measures Act was implemented by the Government of India and all the weights and measures of British Indian system were in force in dealing of grains, gold and silver, cotton, cloth, etc. Grains were weighed by 'pali' (equal to six *seers*). 'Pali' was sub-divided into 'Pavali', one *pavali* was equal to two *seers*, one maund was equal to six *pali* plus two *pavali*, and 40 *seers* made a maund. The *seer* was sub-divided into "navtank" and 'adhor'. One *seer* was equal to forty 'rupiabhar' which was the actual weight of 40 rupees of British India.

The State looked after regulation of weights and measures by putting its own stamp mark 'C. U.' on all weights and measures.

Baroda

The following details from the former *Baroda State Gazetteer* throw light on the weights and measures used in the past. The *sher* of 40 rupees weights of 180 grains each was laid down as a unit. 40 *shers* made a maund. The *sher* was sub-divided into *achher*, (half a *sher*), and *pasher* ($\frac{1}{4}$ *sher*), a *pasher* was further sub-divided into two *navtanks* and a *navtank* into two *adhols*. An *adhol* was equal to an ounce of the weight of two and a half rupees. Length was measured by the *gaj* of 24 inches. To provide standard weights, arrangements were made in each taluka to test and stamp weight and measures brought by merchants and artisans. Gold and silver were weighed throughout the territory according to the following scale; three *ratis* equal to one *val*, sixteen *vals* equal to one *gadiana* and two *gadianas* or thirty two *vals* equal to one *tola*. Cotton was weighed in *bhar* of 24 *mans* and cleaned cotton by the *khandi* of 20 *mans*.

The local land measure was the *bigha* which was divided into sixteen parts called *vasas*. Each *vasa* was divided into 20 *visvasi*, 1.7 *bighas* were equal to 1 acre.¹

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of Baroda State*, Vol. I., Baroda, (1923), pp. 392-394.

The State Government appointed a committee of officials and non-officials under the *Sar Suba* to consider the question of standardisation of weights and measures in the State in the year 1938-39. Pursuant to its recommendations, the weights and measures in the State were brought into conformity with those prevailing in the Bombay Presidency in 1940 by passing a special Act.

This Act was enforced from the year 1942-43.¹ These weights and measures were used even after Independence. The majority of countries of the world had adopted the decimal system. The Government of India, therefore, introduced the Metric System of Weights and Measures throughout the country for simplifying, conversion and calculation. Under this system the weights and measures were reduced to a multiple of ten. In Gujarat the use of the metric measures is made compulsory throughout the State from April, 1962. Its enforcement is entrusted to the office of the Commissioner of Industries in the State. The salient features of the system are set out below.

- (1) Length is measured in metres instead of in yards,
1 metre = 1.09 yards.
- (2) Distance is measured in kilometres instead of in miles,
1 km. = 0.62 miles.
- (3) Weight is measured into kilograms instead of in pounds (lb.) or seer, 1 kg. = 2.2 lbs. or 1.07 seer, and quintal instead of a maund,
1 quintal = 5.38 mds.
- (4) Area of land is now measured in hectares instead of in acres.
1 hectare = 2.47 acres.
- (5) Weighment in *tolas* has been replaced by grams, 1 gram which is one thousandth part of kilogram is equal to 0.086 *tolas*.
- (6) Unit for valuable stone continues to be in 1 carat = one-fifth of the gram = 0.017 *tola*.

At present the use of old weights and measures has been banned throughout the State. The Inspectors of Weights and Measures strictly enforce the rules and any breach under the Act and Rules makes a person liable for punishments.

1 *Baroda State Administration Reports*, 1938-39, p. 12, 1939-40, p. 126., 1940-41, p. 137. 1941-42, p. 159.

STATEMENT VI-2

Location of Banking Offices, 1970

Sl. No. 1	Name of the Bank 2	Location 3	Year of opening 4
1	Bank of Baroda	Vadodara	1908
2	Bank of Baroda	Dabhoi	1920
3	Bank of Baroda	Karjan	1925
4	Bank of Baroda	Sankheda	1940
5	Dena Bank	Vadodara	1943
6	Punjab National Bank	Vadodara	1944
7	United Commercial Bank	Vadodara	1944
8	Central Bank of India	Chhota Udepur	1945
9	Bank of Baroda	Vadodara	1946
10	Central Bank of India	Vadodara	1949
11	State Bank of India	Vadodara	1954
12	Punjab National Bank	Dabhoi	1955
13	State Bank of India	Dabhoi	1957
14	Bank of Baroda	Vadodara	1957
15	Bank of Baroda	Vadodara	1958
16	Bank of India	Vadodara	1958
17	Dena Bank	Padra	1958
18	Syndicate Bank	Vadodara	1958
19	Bank of Baroda	Bodeli	1959
20	Union Bank of India	Vadodara	1959
21	Bank of Baroda	Vadodara	1960
22	Bank of Baroda	Vadodara	1960
23	Bank of Baroda	Vadodara	1961
24	State Bank of India	Padra	1961

STATEMENT VI-2—contd.

1	2	3	4
25	Bank of Baroda	Savli	1963
26	Dena Bank	Vadodara	1963
27	Bank of Baroda	Vadodara	1964
28	Bank of Baroda	Vadodara	1964
29	Bank of India	Vadodara	1964
30	Bank of India	Vadodara	1964
31	State Bank of India	Chhota Udepur	1964
32	Union Bank of India	Bajwa	1964
33	Indian Overseas Bank	Vadodara	1964
34	Bank of Baroda	Chhani	1965
35	Bank of Baroda	Badharpur	1965
36	State Bank of India	Pavi-Jetpur	1965
37	State Bank of India	Koyali	1965
38	Central Bank of India	Vadodara	1965
39	State Bank of India	Bodeli	1965
40	Bank of Baroda	Koyali	1966
41	Bank of India	Vadodara	1966
42	Dena Bank	Sinor	1966
43	Punjab National Bank	Vadodara	1966
44	United Commercial Bank	Vadodara	1966
45	Bank of Maharashtra	Vadodara	1966
46	Union Bank of India	Vadodara	1966
47	Bank of Baroda	Ranoli	1967
48	Bank of Baroda	Fertilizernagar	1967
49	Bank of India	Vadodara	1967

STATEMENT VI-2—*contd.*

1	2	3	4
50	State Bank of India	Vadodara	1967
51	State Bank of India	Karjan	1967
52	State Bank of India	Savli	1967
53	Central Bank of India	Kayavarohan (Karvan)	1967
54	Dena Bank	Vadodara	1967
55	State Bank of India	Vadodara	1968
56	State Bank of India	Vadodara	1968
57	State Bank of India	Bajwa	1968
58	Central Bank of India	Masar Road	1968
59	Dena Bank	Vaghodia	1968
60	United Commercial Bank	Gorwa	1968
61	State Bank of Saurashtra	Vadodara	1968
62	Bank of Baroda	Vadodara	1969
63	Bank of Baroda	Vadodara	1969
64	United Commercial Bank	Bil	1969
65	Bank of Baroda	Vadodara	1969
66	Bank of Baroda	Bhaili	1969
67	Bank of Baroda	Tilakwada	1969
68	Bank of India	Vadodara	1969
69	State Bank of India	Vadodara	1969
70	State Bank of India	Sinor	1969
71	Central Bank of India	Vadodara	1969
72	Central Bank of India	Vadodara	1969
73	Central Bank of India	Vadodara	1969
74	Central Bank of India	Sokhda	1969
75	State Bank of Saurashtra	Vadodara	1969
76	Canara Bank	Vadodara	1969
77	Indian Overseas Bank	Vadodara	1969
78	Bank of Baroda	Padra	1970
79	Bank of Baroda	Sadhli	1970

STATEMENT VI-2—*concl.*

1	2	3	4
80	Bank of Baroda	Kandari	1970
81	Bank of India	Vadodara	1970
82	Bank of India	Itola	1970
83	Central Bank of India	Vadodara	1970
84	Central Bank of India	Bhaderva	1970
85	Central Bank of India	Naswadi	1970
86	Central Bank of India	Bodeli	1970
87	Central Bank of India	Sandasal	1970
88	Canara Bank	Sinor	1970

Source : Compiled on the bases of information supplied by individual banks working in the district.

CHAPTER VII

COMMUNICATIONS

Economic development of a region depends on a number of factors. Natural resources coupled with infrastructure facilities and sound financial position are capable of turning arid lands into greenery. Roads are among the few innovations of modern times which have transformed the face of the world by removing the old barriers. In good old days when villages/places were isolated from one another, journey was undertaken either on foot, on horse or camel back or in bullock carts. There were serious limitations on long distance travels as there were no *pucca* roads. The earthen tracks fell into disuse in wet season and movement of men and material was extremely hazardous, if not impossible. Now with the introduction of automobiles and steam engines, the journey has become both quicker and comfortable. The old means of transport have been gradually replaced by the modern means of conveyance.

The Vadodara district is served by rail, road and air transport. The fourth form is absent because there are no ports, yet this loss is more than compensated by establishment of a net-work of roads and railways, which not only bring places together but also provide an enlarged hinterland for socio-economic progress. Among the 19 districts, this district has the longest railway lines in the State. Air link with Bombay, Delhi, Calcutta and Madras is provided through inter-connected flights operated by the Indian Air Lines.

However, in view of the establishment of big industries like oil refinery, fertilisers and petro-chemicals in and around the city, transport facilities have been expanded and augmented to meet future exigencies. The electrification project of the Western Railway between Ahmadabad and Virar, proposed conversion of some of the narrow gauge lines into broad gauge, and provision of railway sidings right upto refinery and fertiliser locations are among the significant steps for quicker movement of goods to and from these industrial complexes. It is also proposed to construct more roads and improve the surface of the existing roads in the 20-year State Road Development Plan (1961-81). It is expected that this will meet the growing needs of the district.

A brief description of transport facilities available in the district at present along with their historical background is given in the pages that follow.

ROADS

Old Time Routes

In good old days, traffic was mostly carried on rough earthen tracks. Such tracks could not be used during the rainy season, which interrupted smooth flow of goods and passengers. In 1859, Colonel Wallace noticed the existence of the following lines of traffic in and around the Vadodara territory : (1) Bharuch to Indore through Dabhoi and Sankheda, (2) branching off from Bharuch and running towards Malwa *via* Halol and Dahod, and (3) from Tankaria port, Vadodara and the conjunction with Malwa road. The traffic passed on these lines for many years. One of the main factors which hindered the development of net-work of roads in the district was non-availability of requisite stones.

"It is almost literally true that, except in a few unimportant districts near the hills, not a stone can be found in the Gaikwad's dominions large enough to throw at a dog. There is in the south of Baroda the black alluvial soil and north of it the white or red sandy soil and varieties of these interspersed, but there is no hard material any where. Consequently there are few or no made roads."

The rulers of the State had invested large amounts in the construction of railways. It was, therefore, thought that the development of rival transport system would adversely affect the State's railway revenues. They, therefore, did not make much effort to construct roads. Thus in 1907, there were only 20 miles of roads in the Vadodara prant. Moreover, prior to the First World War, automobile vehicles hardly appeared on the roads. In the absence of these vehicles, the necessity of hard surfaced roads was not much felt. The former *Baroda State Gazetteer* (1923) mentions about the existence of few roads in the Vadodara prant, *viz.*, road linking Baroda city with the railway station and few surrounding places like Chhani, Makarpura, Atladra and Amaliara. *Kankar* roads were also found between Baroda to Ajwa and Vaghodia and Karjan to Miyagam. This position continued almost till outbreak of the Second World War in 1939.

Due to the exigencies of the Second World War, some roads had to be constructed. The portion of the Bombay-Ahmadabad trunk road passed through the Vadodara territory. Besides, the Vadodara-Khandewadi road (19.5 miles or 31.38 km.), Vadodara-Padra-Dabhasa road (12 miles or 19.31 km.), and Vadodara-Chhani-Mahisagar road were also constructed. Thus on the eve of Independence, there were 75 miles or 120.75 km., of metalled roads and 270 miles or 434.52 km., of fair weather roads.²

1. ELLIOT F. A. H., *Gazetteer of the Bombay Presidency*, Vol. VII, *Baroda*, (1883), p. 142.

2. *Gazetteer of the Baroda State*, (1946), p. 315.

After Independence, roads were assigned an important place in socio-economic development of the country under the Five Year Plans. As a result, the length of roads increased considerably from 605 km., in 1951 to 1507 km., in 1961 and to 2253.14 km., in 1972-73. Of these 1816.38 km., were under the Vadodara District Panchayat and 436.76 km., under the Public Works Department, Vadodara. Of the latter, 14 km., of roads lay in the limits of the Vadodara Municipal Corporation.

The work of improving the surface of the roads was also undertaken simultaneously. In 1950-51, the district had no cement concrete roads. Most of them were only fair weather roads. With their resurfacing, a large number of roads have been converted into all weather roads. The progress made in the road construction after Independence is reviewed in the following statement.

Length of Roads

Year	(LENGTH IN KM.)		
	Metalled	Unmetalled	Total
1951	251	354	605
1961	577	930	1,507
1973	1,443.57	809.57	2,253.14

Source : *District Census Handbook* 1961, 1971, Vadodara District and Executive, Engineers, P.W.D., Vadodara and District Panchayat, Vadodara.

The statement indicates that the length of roads in the district approximately increased by 270 per cent, in a little over two decades. It is also clear that surface of the roads has also been improved considerably. Despite this progress, the district lagged far behind the Nagpur Plan targets. To remove this deficiency and shortfall, a 20-Year Road Development Plan (1961-1981) has been prepared on the basis of the principles laid down in the All-India Road Development Plan (1961-81) as shown below :

Gujarat State entered the 20-Year Road Development Plan period with a deficit of 42 per cent with reference to the Nagpur Plan, 1943. The new plan envisages a target of 57,628 km., of roads in the whole State as on 31st March, 1981. The objectives of the new plan are as under (i) to provide 32 km., of roads per 100 sq. km. of area on an average, and (ii) to bring every village (a) in a developed and agricultural area, within 6 km., of a metalled road and 2 km., of any road, (b) in a semi-developed area within 12 km., of a metalled road and 4 km., of any road ; and (c) in an undeveloped and uncultivable area within 18 km., of a metalled road and 7.5 km. of any road.

The all-India target under this plan is 10.58 lakh km., by the end of 1980-81. Thus only 49 per cent of new roads will have to be constructed for the country as a whole during 1961-81, but when the Gujarat State embarked on the new road plan in 1961, it already had a deficit of 42 per cent, as compared to the Nagpur Plan. Thus to catch up with the new road target, greater efforts were required to be put into action. The target for the district in the new Road Plan is 3412 km. A total of 2253 km., of roads has already been constructed. There will thus be a gap of 1159 km., which will have to be made good during the remaining period of the Plan.

The following statement shows position of different categories of roads in the district since 1951.

Category 1	(LENGTH IN KM.)		
	1951 2	1961 3	1973 4
National Highways ..	19.32	72	75.84
State Highways ..	585.81	231	335.14
Major District Roads		187	465.17
Other District Roads		428	685.53
Village Roads ..		589	691.76
Total ..	605.13	1,507	2,253.14

Source :

(1) Executive Engineer, Roads and Buildings Division, Public Works Department, Vadodara.

(2) District Panchayat, Vadodara.

Roads are classified into National Highways, State Highways, Major District Roads, Other District Roads and Village Roads according to the Nagpur Plan. Their description in brief is given below.

NATIONAL HIGHWAYS

National Highways (N. H.) are the main highways serving predominantly national, as distinct from State purposes and run through the length and breadth of India, connecting major ports, foreign highways, capitals of State and strategic routes of importance for the defence of the country. These are maintained by the State Public Works Department from the Central Government funds. They are generally tar roads with a minimum width of 38 feet or 11.58 metres. In this district, their length in 1973 was 75.84 km.

The Bombay-Delhi (N. H. No. 8)

A portion of this important trunk road passes through this district. From Bombay it runs into northern direction and after traversing the districts of Valsad, Surat and Bharuch, it enters the limits of the Vadodara district near Haldarva village of Karjan taluka. In this district, it passes through the Karjan and Vadodara talukas, and after passing through Fazalpur village of the Vadodara taluka it enters Kheda district and goes further upto Delhi. Thus the road connects the district with important trade centres like Bombay, Surat and Bharuch to its south and Ahmadabad, Mahesana and Delhi to its north, and wields a great economic significance for the district. The total length of the road in the district was 75.84 km., in 1972-73 which has a black topped surface. It is motorable all the year round. A portion of 14 km., of this road lies within the Vadodara Municipal Corporation's limits.

STATE HIGHWAYS

State Highways (S. H.) have been defined as all other main, trunk or arterial roads of a State connecting with National or State Highways of adjacent States, district headquarters and important cities within the State and serving as main arteries of traffic to and from district roads. These roads are maintained by the State Public Works Department. They have a tar surface and a minimum width of 32 feet or 9.75 metres and are completely motorable throughout the year, except at those places having causeways or submersible bridges where traffic may be, at times, interrupted in monsoon. The State Highways are usually connected with National Highways. At the end of the year 1972-73, the total length of such roads in the district was 335.114 km. A brief description of the State Highways passing through the district is given below.

(1) *Vadodara-Khandewadi (S. H.)*

This road starts from Vadodara and runs into north-east direction towards Khandewadi of the Vaghodia taluka and goes further into the Panch Mahals district. Its total length in the district is 28.20 km., with a black topped surface motorable throughout the year. The road is important as it links the two districts of Vadodara and Panch Mahals.

(2) *Vadodara-Padra-Jambusar Road (S. H.)*

This inter-district road branches off from the Bombay-Vadodara-Delhi National Highway from Vadodara and runs into south-west direction. In this district, it passes through the Vadodara and Padra talukas. After passing through Masar Road of Padra taluka, it enters the Jambusar taluka of

adjoining Bharuch district. Thus a direct road link is established between Jambusar and as far upto Delhi through the National Highway mentioned at the outset. Its total length in the district is 37.64 km., which has black topped surface, motorable in all the seasons.

(3) *Vadodara-Alirajpur Road* (S. H.)

This is one of the most important inter-State Highways passing through the heart of the district. Starting from Vadodara, it runs in south-east direction upto Dabhoi, and goes further in the same direction towards Chhota Udepur. After leaving Ferikuva village of the Chhota Udepur taluka, it leaves the district boundry and terminates at Alirajpur in Madhya Pradesh State. In this district, it passes through as many as five talukas, viz., Vadodara, Dabhoi, Sankheda, Jabugam and Chhota Udepur. Its total length in this district is 127.60 km., which has a black topped surface, trafficable throughout the year. It has a great economic significance, because minerals like dolomite and fluorspar have been found in and around Chhota Udepur. The road helps to connect Vadodara district with the neighbouring Madhya Pradesh State.

(4) *Bodeli-Akteshwar* (S. H.)

This State Highway takes off from the Vadodara-Dabhoi-Chhota-Udepur-Alirajpur Road near Bodeli (Sankheda taluka) and runs into southern direction towards Tilakwada where it meets the Dabhoi-Tilakwada-Devaliya, State Highways. After leaving the Nalgam village of the Tilakwada taluka, the road runs further upto Netrang in the Rajpipla taluka of Bharuch district. The total length of the road in this district is 46.50 km., which has a black topped surface. The road is fully bridged and is, therefore, motorable throughout the year. The road connects the Vadodara and Bharuch districts.

(5) *Dabhoi-Tilakwada-Devaliya Road* (S. H.)

This State Highway also takes off from the Dabhoi-Chhota-Udepur State Highway and runs in southern direction towards Tilakwada and terminates at Devaliya, a village in the Tilakwada taluka. The total length of the road is 37.80 km., which has a black topped surface, motorable throughout the year. It links Tilakwada with Dabhoi, which is on the inter-State Vadodara-Dabhoi-Bodeli-Chhota-Udepur-Alirajpur State Highway.

(6) *Kawant-Chhota Udepur-Zoz-Kevdi Road* (S. H.)

This road is very important for the Chhota Udepur taluka as it links the northern and southern limits of taluka, with Chhota Udepur which

is situated on the Vadodara-Dabhoi-Chhota-Udepur State Highways. The total length of the road, from Kawant to Kevdi Road is 56 km. It has a black topped surface, negotiable in all the seasons.

Besides the above mentioned State Highways, the Kawant-Kadi Pani-Amba-Dungar, a Major District Road is also under the charge of Roads and Buildings Division, Public Works Department, Vadodara.

MAJOR DISTRICT ROADS

Major District Roads (M. D. R.) are roughly of the same specifications as the State Highways with this difference that their minimum width is 24 feet or 7.32 metres and are subject to interruptions of traffic in monsoon. They connect important marketing centres with railways, State Highways and National Highways. In this district, the total length of such roads was 440.07 km., in 1972-73. The statement appended to the chapter shows the position of such roads in the district. They are under the charge of the District Panchayat, Vadodara from 1st April, 1963.

OTHER DISTRICT ROADS

Other District Roads (O. D. R.) are also of the same type as the Major District Roads but they are subject to frequent interruptions of traffic during the rainy season. In this district, the total length of Other District Roads was 685.05 km., in 1973. The statement appended to the chapter shows the position of Other District Roads in the district. These roads are maintained by the District Panchayat, Vadodara from 1st April, 1963.

VILLAGE ROADS

Village Roads (V. R.) are generally unmetalled approach roads from the main roads to villages. The total length of these roads in the district was 691.26 km., at the end of 1972-73. The statement appended to the chapter shows the places covered under the village roads in the district. They are maintained by the District Panchayat, Vadodara from 1st April, 1963.

MUNICIPAL ROADS

There were two municipal towns in the district, i. e., Vadodara and Dabhoi. Total length of the roads under these municipalities was 409.93 km. Of these the Vadodara Municipal Corporation maintained 373.87 km., roads and the Dabhoi Municipality 36.06 km. Out of 409.93 km., 263.85 km., had metalled surface and 147.08 km., had unmetalled surface.

VEHICLES AND CONVEYANCE

Beasts of Burden

There are certain beasts, which are used for carrying goods and passengers from one place to another, e. g., horses, ponies, camels, etc. Their number according to Livestock Census, 1972, was 5,484.

Bullock Carts

Prior to the introduction of automobile and locomotive vehicles, bullock cart was the main means of conveyance. Their importance has been reduced in the modern times to some extent for long distance travels because of the growth of road and railway transport. They, however, still occupy an important place in the village economy which is primarily agricultural. This is clearly evident from the Livestock Census of 1972, which returned 49,777 bullock carts plying in the various parts of the district.

Other Vehicles

Total number of vehicles registered in the district was 24,935 in 1974. These were : motor cycles and scooters-12,336, motor cars-4,516, motor trucks-2,163, auto rickshaws-1,805, tractor-1,451, jeeps-1,193, trailers-956, taxis-148 and other vehicles 367. It can be observed that motor cycles and scooters accounted for nearly 50 per cent of total vehicles on account of the fact that prices of petrol has risen very high in recent years. These prove cheaper to cars or other four vehicles run by petrol. Though it is not possible to assess the exact number of bicycles in the absence of their registration, it can safely be mentioned that the people use bicycles in increasing number as compared to the past as it is the cheapest and most readily available vehicle.

ROAD TRANSPORT

Development of good roads in the district, on which automobiles could ply, was hindered on account of non-availability of requisite stones in the former Baroda State. Further, the State had invested a large amount of money in railways. It, therefore, feared that road construction would perhaps affect the State's railway earnings. For these reasons road transport could not be developed. Thus villages in the interior remained isolated from one another almost till Independence. The Baroda State was merged into Bombay State from 1st May 1949.

In order to develop the country side and to break the age-old isolation of the people, Government embarked on a programme of road construction vigorously after Independence.

As a first step, the Government of Bombay nationalised the passenger road transport services, because the private operators cared little for the convenience of the passengers. There was cut-throat competition among rival bus operators, and old and worn out vehicles, which could endanger public safety, were used solely with the motive of making maximum profit. These evils were sought to be removed gradually by taking over the control and management of private bus services.

Prior to the State's merger in the Bombay State, buses in the Vadodara city and around were operated by private bus companies, viz., (i) M/s. M. M. Vora and Co., (ii) M/s. Vi'ay Transport Services, (iii) M/s. Vadodara Bus Corporation, (iv) M/s. Prem Bus Service, (v) M/s. Vadodara Bus Owner's Services, (vi) M/s. Nyalchand Bus Service, (vii) M/s. Gordhan Bus Service, (viii) M/s. Ram Bus Service, etc. The nationalisation of the passenger services in the district commenced from 1953, when the Bombay State Road Transport Corporation assumed control over the city bus service and the mofussil bus routes in Padra pocket from the private operators. In the beginning 31 scheduled services were operated from the depots of Vadodara and Padra, comprising 24 services for city service and 7 from the Padra depot for operation in the mofussil areas. A divisional office and a workshop were started at Vadodara. The services in the Vadodara division were extended in due course not only to other areas of this district but to the adjoining Bharuch district also. This position continued till the formation of the Gujarat State.

From May 1960, the Gujarat State Road Transport Corporation began to operate the passenger bus services in the State. The number of routes in the district increased from 15 in 1953 to 131 in 1960 covering a length of 3,087 route km.

Besides the central bus station at Vadodara there are such stations at Padra, Chhota Udepur, Dabhoi, Bodeli and Karjan. Since then the progress in State Transport operations is both remarkable and outstanding, as will be clear from the following figures, which indicate position as on 31st March, 1973. The number of routes rose from 265 in 1965 to 395, route kilometres went up from 2837.6 to 17,138.2, scheduled trips from 159 to 299, number of vehicles from 177 to 355 and average number of passengers travelled per day increased from 1,26,112 to 2,31,974.

As regards availability of State transport services to the towns and villages in the district as on 31st March, 1973, it could be seen that out of a total of 1,689 villages and towns in the district, 49.38 per cent had local bus stands and 31.85 per cent had them within a distance of 3 km. For the remaining (18.77 per cent) villages, bus stand was located at a

distance of 5 km., and beyond. Thus, the district is fairly well served by the passenger bus services operated by the Corporation. The people of the district could now go easily to Ambaji in the north, Surat in the south and Dohad in the east as also to Rajkot, Bhavnagar, Godhra, Dakor, Rajpipla, etc. Places like Ujjain and Badvani in the adjoining Madhya Pradesh State are also brought nearer through inter-State services of the State transport. By this expansion, the mobility of the people has tremendously increased which has brought about diversification of occupations among the otherwise static rural folk. Secondly, the increased transport facilities have led to expansion in educational facilities even in the distant villages. Markets have been brought near to each other. Thus the State Transport has provided easy, cheap and reliable means of transport and has helped the trade and industry very much. The countryside no longer bears the stamp of isolation. It has thus brought about far reaching socio-economic changes in the region.

Depots and Other Facilities—The places where depots located are : Vadodara (city), Vadodara (mofussil), Chhota Udepur, Dabhoi, Karjan and Padra. Besides there were 123 pick-up sheds in other areas of the district. Facilities such as drinking water, cloakroom, refreshment room, retiring room, book stall, etc., are provided at the central bus station at Vadodara. Other S'tations have at least drinking water and refreshment room facilities for the convenience of passengers.

Labour Welfare Activities—In addition to the usual amenities provided by the State Government, the corporation has also undertaken following schemes for welfare of its employees : (i) a dispensary each at Vadodara city and Vadodara (mofussil) depots, (ii) a staff welfare committee functioning at Vadodara provides reading room, library and sports and other recreational facilities. Equipments like hot-water bag, ice-bag, thermometer, etc., are also provided to all the units for the use of staff members, (iii) a co-operative credit and thrift society at Vadodara gives loans to its members at reasonable rates of interest. The Corporation also grants loans to its employees for housebuilding purposes, (iv) cultural activities like film shows, dramas, musical and other entertainment programmes are also arranged by the Divisional Staff Welfare Committee.

A voluntary scheme called the "Employees' Benevolent Fund Scheme" has been started by the Corporation for helping employees in time of distress such as sickness, injuries or death and retirements. It also provides assistance on social occasions, and scholarships for education of children.

Labour Unions—The State Transport Workers' Union affiliated to the National Labour Organisation and the State Transport Karmachari Mandal affiliated to Indian National Trade Union Congress, are recognised by the Corporation and are functioning at the divisional headquarters, Vadodara.

RAILWAYS

At present the district is served by the following railway lines :

1. The Bombay Central-Surat-Vadodara-Mathura-Delhi line (B. G.)
2. The Vadodara-Anand-Ahmadabad-Viramgam line (B. G.)
3. The Jambusar-Viswamitri-Dabhoi-Chhota Udepur line (N. G.)
4. The Chandod-Miyagam-Karjan-Malsar line (N. G.)
5. The Miyagam-Choranda-Moti-Koral line (N. G.)
6. The Chhuchhapura-Tanakhala line (N. G.)
7. The Champaner-Pani-Mines line (N. G.)
8. The Dabhoi-Samalaya-Timba line (N. G.)

Baroda State was the pioneer among the Indian States to initiate railway construction in its territories in 1869. Ganpatrao Gaekwad had granted permission to 'Bombay-Baroda and Central India Railway Co.,' in 1856 for the construction of railways. There was gradual expansion between 1870-1922. The State's investment in Railways till 1946 amounted to Rs. 5.98 crores. The details of lines traversing the district at present are given below :

(i) *The Bombay Central-Surat-Vadodara-Mathura-Delhi Line (B. G.)*—This was the first railway line started in 1860, and is one of the most important broad gauge lines passing through the district. It was constructed by the B. B. and C. I. Railway Co., soon after the completion of the survey of the area between Bombay and Gujarat in 1853. After passing through Valsad, Surat and Bharuch districts, it enters Vadodara district near Lakodra station of the Karjan taluka and runs through Karjan, Vadodara and Savli talukas of this district and thereafter passes through the Panch Mahals district upto Anas station in Dahod taluka. The total length of the line in this district is 75.68 km. It has a great economic significance as it passes through the States of Maharashtra, Gujarat, Madhya-Pradesh, Rajasthan, and Uttar Pradesh. The line links Vadodara with both Bombay, a cosmopolitan and an industrial city and Delhi, the capital of the country.

Electrification Project

Looking to great economic importance, the line between Virar in Maharashtra and Sabarmati in Gujarat has been electrified as a part of modernisation programme of railways. The electrification work commenced in 1969 and completed in 1974. A major marshalling yard has been constructed at Vatva near Ahmadabad to replace existing smaller yards between Ahmadabad and Sabarmati.

1. Bombay, Baroda and Central India Railway Company.

The section between Ahmadabad-Vadodara marking the commencement of the main line of electrification on the Western Railway, was commissioned in March 1973 and further section between Vadodara and Valsad was commissioned in March 1974. The remaining section, between Valsad-Virar is proposed to be commissioned by December, 1974.

(ii) *The Vadodara-Anand-Ahmadabad-Viramgam Line (B. G.)*—This broad gauge line was also constructed by the B. B. & C. I. Railway Co., in 1862. The line was extended upto Ahmadabad in 1863 and upto Viramgam in (1870). The total length of the line in the district is only 8.11 km., between Vadodara and Ranoli (Vadodara taluka). From Vasad station onwards the line runs in the Kheda and Ahmadabad districts.

The line feeds the traffic bound for important places in Kheda and Ahmadabad districts and districts in western Gujarat.

(iii) *The Jambusar-Vishwamitri-Dabhoi-Chhota Udepur Line (N. G.)*—This narrow gauge line was constructed by the Baroda and Chhota-Udepur States between 1879-1917. The line was opened for traffic in stages as under.

Sl. No. 1	Name of the Section 2	Date of opening 3
1	Dabhoi-Bahadurpur ..	.. 17th September, 1879
2	Dabhoi-Goyagate (Pratapnagar) ..	.. 1st July, 1880
3	Goyagate (Pratapnagar).Vishwamitri ..	.. 24th January, 1881
4	Bahadurpur-Bodeli ..	.. 16th June, 1890
5	Vishwamitri-Padra ..	.. 1st July, 1897
6	Padra-Mobha Road ..	.. 10th July, 1903
7	Mobha Road-Masar Road ..	.. 1st November, 1904
8	Masar-Jambusar ..	.. 1st May, 1917
9	Bodeli-Chhota Udepur ..	.. 1917

The section between Jambusar to Bodeli was constructed by the Baroda State and that from Bodeli to Chhota Udepur by the Chhota Udepur State, though its entire management was with the Gaikwar's Baroda State Railway (G. B. S. Railway) Department under an agreement with Chhota Udepur State (1921). The total length of the line in the district is 138.79 km. In this district it passes through Chhota Udepur, Sankheda, Dabhoi, Vadodara and Padra talukas. It also links the places in the above talukas with adjoining Bharuch district.

The traffic survey for converting the narrow gauge sections between Chhota Udepur and Pratap Nagar into broad gauge was carried out in 1971-72. Further progress in this connection is not yet made.

(iv) *The Chandod-Dabhoi-Miyagam-Karjan-Malsar Line (N. G.)*—This was the first narrow gauge line constructed by the Vadodara State. The Dabhoi-Miyagam section was opened for traffic in 1873 and that from Dabhoi to Chandod in 1879. The Miyagam-Malsar section was opened on 15th January 1912. Thus the entire line was constructed between 1873-1912.

The total length of the line in the district is 78.17 km. It passes through Dabhoi, Karjan and Sinor talukas of the district. Miyagam-Karjan is an important junction station on Bombay-Delhi broad gauge line. Dabhoi is one of the largest terminus of metre gauge lines in the country and an important trade centre in the district. Chandod and Malsar are religious centres on the river Narmada. Karnali which is located at a walking distance from Chandod can be reached by a boat also. It is also very famous as a centre of pilgrimage.

(v) *The Miyagam-Karjan-Choranda-Moti Koral Line (N. G.)*—Choranda is a junction station on Miyagam-Malsar section of the Chandod-Miyagam-Karjan-Malsar narrow gauge line, which was opened for traffic in 1912. From Choranda, the line was further extended upto Moti Koral in 1921.

The total length of the line from Choranda is 18.11 km. The line feeds the pilgrim traffic to Nareshwar on the Narmada river which is a seat of famous Saint Rang Avadhut, a staunch devotee of Guru Dattatraya. On the eve of *Datta-Jayanti*, which falls on the fifteenth of Margashirsha, it is visited by a large number of devotees.

(vi) *Chhuchhapura-Tanakhala Line (N. G.)*—Chhuchhapura is a railway station on the Jambusar-Dabhoi-Chhota Udepur narrow gauge line. From Chhuchhapura, this narrow gauge line was constructed upto Tanakhala station of Nasvadi taluka in 1922. The total length of the line is 38 km. In the district, it passes through Sankheda and Nasvadi talukas which are largely inhabited by tribal population. The survey for converting this narrow gauge line into broad gauge was carried out in 1971-72. Sankheda is famous for its lacquer work on wood.

(vii) *The Dabhoi--Samlaya-Timba Line*—This narrow gauge line was constructed by the Baroda State in stages between 1913 and 1919 : (i) Dabhoi and Jarod 1913, (ii) Jarod and Samlaya, 1915, and (iii) Samlaya and Timba 1919. Its total length in the district is 100.39 km. It passes through Dabhoi, Vaghodia and Savli talukas of the district. The line is very important for the Savli and Vaghodia talukas.

(viii) *The Champaner-Pani Mines Line* This narrow gauge line branches off from Champaner, on the broad gauge Bombay-Delhi line. The line was constructed for the exploitation of manganese ore found in the area. It was worked and owned by the Government of India and was opened for traffic in the year 1911. Champaner (in Savli taluka) and Pani Mines (in Jabugam taluka), which are the starting and terminating points, are the only twin stations falling within the limits of Vadodara district.

The main characteristics of the railways in the district are as under :

(i) The construction of railways commenced during the years 1853-60 and ended in 1922. The district is served by 8 railway lines, of which 2 are broad-gauge and 6 are narrow-gauge and serve a vast hinterland comprising Maharashtra, Madhya Pradesh, Rajasthan, Uttar Pradesh, and Union territory of Delhi on the one hand and Saurashtra peninsula and Kachchh on the other. Further, all the talukas of the district with the exception of Tilakwada Mahal are served by at least a railway line. There are 93 railway stations in the district.

The total length of railway lines in the district is at present 472 km. Of these, 97 km., are broad-gauge and 375 km., narrow-gauge. In terms of area and population served by the railways, (according to the data on area and population given by the 1971 Census) it can be said that there are 60.60 km., of railway line per 1,000 sq. km., and 23.84 km., per lakh of population. The railways feed pilgrim traffic bound for Chandod, Karnali and other holy places situated on the bank of river Narmada in this district. It also helps transportation of forest produce, minerals and mineral wealth like oil, fertilisers, pharmaceuticals, cotton, tobacco, etc. Special railway sidings are extended to the Gujarat State Fertilisers Company and the Gujarat Refinery.

Passengers and Goods Traffic

The statement appended to the chapter shows total number of passengers travelled and tonnage of goods hauled at each railway station in the district. Important railway stations from the point of goods haulage are Vadodara, Dabhoi and Bodeli.

BRIDGES

Bridges make the roads trafficable all the year round and facilitate movement of men and cargo. The old stone bridge in the city is described as under.

It is probably of great antiquity and its erection is ascribed to Vanjaras, who, three centuries back lived in the western suburbs of the city. Mr. Forbes, the author of *Oriental Memoirs*, writing towards the end of last century said of it, "I mention it because it is the only bridge I ever saw in India."

It consists of two ranges of solid and rather narrow arches one over the other. It has been described as follows : "This stone bridge is made to rise the height of the banks on each side by being built two stories high. The real bridge is a viaduct built over a succession of arches rise from the bed of the nala." Seen from the stone steps which on either side lead to the water's edge, the bridge, flanked by temples and trees, presents a very handsome appearance. An old bridge of almost the same pattern spans the Vishwamitri river on the Baroda-Savli road about three miles from Baroda; it is known as 'Sama Bridge'.

In addition to this, following bridges were also found : (1) Bridge with three arches on the river Dhadhar in Dabhoi taluka constructed by Khanderao Gaekwar, (2) three railway bridges of single span in the Sinor taluka, (3) two in Vaghodia taluka each on the river Vishwamitri and Surya, and (4) between Mandva and Chandod in Chandod taluka, (5) three in Vadodara taluka.

Even as late as 1946, the Baroda Gazetteer has mentioned about the inadequacy of bridges.

After Independence as a result of large spending in each Plan, bridges are built on the highways and other important roads in the district. At present there are in all 72 bridges and causeways in the district-31 under the Executive Engineer, Roads and Buildings Division P. W. D., Vadodara and 41 under the District Panchayat, Vadodara. Their details are given in the Statement VII-5, appended to the chapter. The statement reveals that the longest bridge is constructed on the river Mahi between Ranoli and Vasad. Those on river Orsang on the Chhota Udepur-Hamfeshwar (M. D. R.) and the Bodeli-Tilakwada State Highway are the next longest bridges in the district.

AIR TRANSPORT

The aerodrome at Vadodara was constructed by the former princely State in 1936. It was taken over by the then Government of Bombay in 1949. The Civil Aviation Department of the Government of India assumed the responsibility for the maintenance of civil aerodromes in the country from April, 1950 under the Federal Financial Integration Scheme. In 1953, the civil aviation in India was nationalised and two autonomous corporations called the Indian Airlines and the Air-India International were created. The maintenance of internal air services was entrusted to the Indian Airlines which operates the air services to different air ports in the country. The Indian Airlines began to operate flying scheduled air services to and from Vadodara airport from 14th July, 1969 and at present Vadodara is linked with Ahmadabad and Bombay and with other air ports.

1. DESAI, G. H. AND CLARKE, A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), p. 278.

Air traffic statistics for the year 1972-73 disclose that 11,000 persons landed and 13,000 passengers boarded from the Vadodara aerodrome.

TRAVEL AND TOURIST FACILITIES

In this section three categories of resting places are included : (i) rest/guest house, constructed by the Government or the District Panchayats, (ii) private lodging and boarding houses and (iii) *dharmashalas* and *sarais*.

(i) *Rest/Guest House*—These are available at the District headquarter towns and taluka centres and are constructed by the Public Works Department or the District Panchayat. These are available to the travelling public, preference generally being given to the Government servants on duty. These are well furnished and boarding facilities are available in circuit houses and rest houses on payment. Generally, tea, coffee and breakfast are also served to visitors on payment. The Vadodara Municipal Corporation also maintains one *Pathikshram* near the railway station for the tourists visiting the city. The list of circuit/guest/and rest houses maintained by the Public Works Department and Vadodara District are shown below :

Rest Houses, 1973

Under P. W. D., Vadodara	Under the District Panchayat, Vadodara
1 Vadodara (Circuit house)	1 Vadodara (three), 2 rest houses and one Sanatorium at Fazalpur
2 Bodeli	2 Padra
3 Jotpur-Pavi (Jabugam)	3 Karjan
4 Chhota Udepur	4 Sinor
	5 Savli (2), one rest house and one Inspection Bungalow
	6 Pandu
	7 Samliya
	8 Vaghodia
	7 Dabhoi
	10 Karnali (2), one rest house and one Sanatorium
	11 Chanded
	12 Karvan (Kayavarohan)
	13 Vadhvana
	14 Bahadarpur
	15 Jojwa-Sanatorium
	16 Tilakwada
	17 Zoz
	18 Jabugam

(ii) *Private Lodging and Boarding Houses*—On account of increase of transport and communications facilities, lodging and boarding houses, generally owned by private entrepreneurs are available in almost all the important places inclusive of religious centres and the visiting public can get the facilities of lodging and boarding on payment. Vadodara and Dabhoi are the twin important centres where such houses are found in large numbers. Vadodara being the capital of the former State and also a district headquarters is now growing rapidly as an industrial centre. The names of important lodging and boarding houses in the city of Vadodara are given below.

Name	Address
1 Baroda Guest House	Sayaji Ganj
2 Madhav Dining Club	Dandia Bazaar
3 Maharashtra Boarding House	Brahmpuri, Raopura
4 Hotel Utsav Pvt. Ltd.,	Navrang Cinema Compound
5 Kumar Lodging Club	Raopura
6 Gujarat Boarding House	Raopura
7 Gandhi Boarding House	Hathipole
8 Gita Niwas Hindu Lodge	Near Gandhi Nagar Griha
7 Garden Lodge	Sayaji Ganj
10 Hotel Panama	Kothi
11 Gopal Krishna Guest House	Mangal Bazaar
12 Shriji Lodge	Pani Gate
13 Green Lodge	Near Gandhi Nagar Griha
14 Poona Boarding House	Ramji Mandir
15 Agrawal Guest House	Jetalpur Naka
16 Satkar Dining Hall	Sayaji Bang
17 Ambassador Hotel	Sayaji Ganj
18 Hotel Kaviraj	Alkapuri

(iii) *Dharmashalas and Sarais*—Dharmashalas for Hindus and Sarais for Muslims are constructed by philanthropic persons, private charitable

institutions and public trusts. These are generally available in large numbers in the religious places like Karnali, Chandod, Ansuya, Vyaseshvar, etc., in the district situated on the banks of the holy Narmada. Here the pilgrims take shelter for short periods and the charges for stay are almost nominal. The pilgrims also get facility of beds, utensils, etc., on nominal payment. These are, therefore, generally preferred by the pilgrims.

In Vadodara district, large number of Dharmashalas are situated in Sinor (17), Dabhoi (16), Padra (14), Savli (12), and Vaghodia (9). There are practically no *dharmashalas* in Naswadi, Tilakwada and Jabugam talukas. Sarais are found at Dabhoi (11), Chhota Udepur and Sankheda talukas.

The institution of priests or *gors* is found to survive in Chandod and Karnali and some pilgrims prefer these priests' houses, because, they not only give lodging facilities but often cook their food and look after their patrons' valuables. These priests have their books of accounts which have recorded previous visits of the pilgrims' relatives and on occasion of fairs like *Ganga Saptami* in the month of *Jyestha* (May) they gather together in large numbers on river banks, railway station or bus station, with account books in their hands mentioning every detail of their patrons and their forefathers, who had visited them in the past. As soon as they pick up their patrons, they would open that particular page where his/her ancestors' name is written. In return for their services, they receive monetary rewards from their patrons.

POST OFFICES

Prior to 1856 there were no postal arrangements in the Vadodara State. In 1856 the State Government granted permission for the establishment of a system of postal runners on the highways to traverse in the State and up to Deesa in the north, to the opium centres in the east, to Kathiawar in the west, and to Bombay in the south. In return, it was also agreed to give an annual refund of the expenditure incurred in sending official letters and packages through the Indian Post offices to the Baroda Government. In 1863-64 the Bombay Post Office developed its organisation in Gujarat and the post offices were opened in the larger towns in the State with the consent of the Baroda Government. The State gave land for erection of offices and cables and provided necessary guards for the protection of the mails.

As regards telegraph offices in the State, it may be stated that before 1880, there was only one telegraph office in the whole State in the Vadodara cantonment. The telegraph offices installed at all railway stations in the State were also kept open to the public. Besides combined

post and telegraph offices were also established at Vadodara, and Karjan in this district and at other places in the State.

At the end of the year 1920-21, there were 84 post offices and 237 letter boxes in the Vadodara *prant*. Each post office was attached to a certain number of villages by messengers who, at fixed intervals, made their visits for delivery of postal articles. In 1937-38, there were 138 post offices and 355 letter boxes in the district.

Prior to Independence, postal facilities could not be extended to the interior villages due to lack of a net work of roads. However, road construction has been taken up on priority basis and large number of roads have been constructed since 1947. Nationalised passenger bus services now ply on these roads and serve even the far-flung and isolated villages. This has encouraged the expansion of postal facilities in the district.

The expansion of postal communications facilities in the country as a whole has been rapid since Independence and launching of the Five Year plans from 1951-52 onwards. The district has also not lagged behind. The following statement shows expansion of postal facilities in the district after Independence.

Postal Facilities, 1973-74

Particular	Year	
	1960-61	1973-74
1 Total Number of Post Offices	395 (including one Head Post Office and 90 temporary and experimental offices.)	508 (including two Head Post Offices)
2 Combined offices	23	36
3 Sub-Post offices	..	76
4 Branch offices	275	430
5 Letter boxes	725	1,053

The following statement shows the taluka-wise distribution of post and telegraph offices in the district in 1973-74. It indicates that the highest number of post offices were located in the Vadodara taluka and the lowest in the Tilakwada mahal. As regards number of villages without post offices, it can be seen that Chhota-Udepur taluka had the highest number of such villages and Sinor taluka the lowest, as population of the former is mostly of Adivasis and of the latter of farmers, Banias, Brahmins, etc., who are educated.

Post Offices by Taluka, 1973-74

Sl. No. 1	Name of taluka/ mahal 2	Number of Post Offices 3	Number of Telegraph Offices 4	Number of Villages without Post offices 5
1	Vadodara ..	91	15	58
2	Karajan ..	38	1	58
3	Padra ..	45	3	40
4	Savli ..	58	2	78
5	Vaghodia ..	43	1	53
6	Dabhoi ..	48	4	75
7	Sankheda ..	50	3	140
8	Jabugam ..	32	2	184
9	Chhota Udepur ..	28	2	253
10	Nasvadi ..	27	1	202
11	Tilakvada ..	22	1	95
12	Sinor ..	26	2	15
	Total ..	508	37	1,251

Source :
Sr. Superintendent of Post Offices, Vadodara.

TELEPHONES

The following statement shows the present position of telephone facilities available in the district as on 31st December 1973.

STATEMENT VII-6
Telephone Facilities in Vadodara District, 1973

Sl. No. 1	Name of Places in Vadodara District 2	No. of Connections 3	No. of Extension 4	Type of Exchange and its capacity 5	Trunk, lineby alignment 6
1	Vadodara Municipal Corporation and other villages, viz., Makarpura Jambuva, Bhali, Sayajipura, and area under Gujarat Refinery, Fertiliser Nagar, etc.	(1) 3041	1,298	Baroda MAX-I with 3600 lines capacity.	No Trunk lines.
2	Vaghodia ..	(2) 618	..	Jail Road MAX II with 800 lines capacity.	
3	Chhota Udepur ..	(3) 339	243	Industrial Estate MAX II with four hundred lines capacity.	
4	Padra ..	(4) 280	397	Koyali MAX II with 400 lines capacity.	
5	Sankheda ..	44	1	50 line SAX	Dabhoi-Waghodia Trunk
6	Trunk P.C.O. Tilakvada ..	88	2	100 line SAX	Bodeli-Chhota Udepur Trunks
7	Karjan ..	170	10	200 line MAX	Vadodara-Padra-3 Trunks
8	Savli ..	23	2	50 line SAX	Bodeli-Sankheda
9	Dabhoi ..	3 Extns.	..	10 line Magnets Sub-Bd.	Nasvadi-Tilakvada
10	Trunk, P.C.O. at Jabugam ..	95	25	200 line CBNM	Vadodara-Miyagam
11	Nasvadi ..	84	..	100 line SAX	Vadodara-Savli
12	Sinor ..	286	..	300 line CBNM	Vadodara-Dabhoi
		..	..	..	Bodeli-Jabugam
		44	4	50 line SAX	Bodeli-Nasvadi
		29	3	50 line SAX	Miyagam-Sinor

Source :
Divisional Engineer, Telegraphs, Vadodara.
SAX=Small Automatic Exchange, C.B.N.M.=Central Battery Non-multiple, MAX=Multiple Automatic Exchange.

RADIO COMMUNICATIONS

The Vadodara Radio Station came on the air on 10th January, 1947, and was declared open by Pratapsinh Gackwar, the then ruler. However, the broadcasting transmitter and studio equipments were received a little earlier. The station was operated on 5 kw. transmitter and was the first Radio Station in the Gujarat region. After the commissioning of the All India Radio, Ahmadabad and the merger of Vadodara State into Bombay State in 1949, Ahmadabad and Vadodara Stations have a common transmitter of 50 kw., which is situated near Barejadi. There is no separate transmitter at Vadodara, but the station has fullfledged broadcasting studios. All the programmes are broadcast in co-ordination with Akashwani, Ahmadabad. On account of the great heritage of classical music, and availability of devoted singers, Vadodara studios have been able to provide most of the classical music of the Ahmadabad-Vadodara Station. Besides relaying common programmes of news-bulletins, etc., from the All-India Radio, New Delhi, light music is also relayed in co-ordination with Ahmadabad. The whole programme for children and women in rural areas called the Rural Broadcasts of Ahmadabad-Vadodara station is provided by the Vadodara studios. Other programmes broadcast from here are : Special Audience Programmes for women and children, Gujarati Programmes of talks, discussions, poetry recitation, short stories, Gujarati plays, talks in English and Hindi, Yuva Vani, school teachers' broadcast, etc. These programmes are broadcast in co-ordination with Akashwani, Ahmadabad, Rajkot and Bhuj. But special audience programmes for children of lower and higher age groups are originated from the Vadodara studios.

Radio Licences

Total number of radio licences, inclusive of new ones, issued in the district, stood at 89,188 at the end of June, 1973. There were 209 television licenses in the city under the Head Post Office at Vadodara, in the year 1977.

Rural Broadcasting

The scheme of Rural Broadcasting was started as early as 1944 and envisages installation and maintenance of community listening radio sets in the villages for the benefit of rural population. Government provides subsidy for installation and maintenance of radio sets. However, Government has kept a special provision for the economically backward talukas in the State for which the rate of subsidy is as much as 33 per cent of the cost of radio set or Rs. 150 which ever is less.¹ The rates of maintenance contribution per set per year are Rs. 75 for a transistorised set, Rs. 150 for

valve type battery operated set and Rs. 60 for an electrically operated set. The remaining cost has to be borne by the participating villages. The State Directorate of Information, which operates this scheme, has installed 576 radio sets in the villages in this district till August, 1973.

Radio has proved to be a very powerful medium of mass communication and this scheme has helped dissemination of valuable knowledge among the village folk about the latest developments in agriculture and has also made people politically conscious. It has also rendered useful service during the time of natural calamities like floods by alerting the people in time to shift to safer places. Again it did yeoman service during the unprecedented floods in the river Narmada in September, 1973, and helped save life and property in villages. The radio provides entertainment by way of drama, music, *bhajans*, songs, etc.

1. Government Resolution G.A.D. No. 494 1065-3174-D, Dated 26th May 1966.

STATEMENTS

STATEMENT VII-1

Major District Roads, 1973

Sl. No. 1	Name of the road 2	Total length (in Km.) 3
1	Por-Karwan-Sinor	20.75
2	Padra-Karjan	24.00
3	Vanachhara-Mobha-Karkhadi	23.60
4	Vadodara-Savli	28.40
5	Savli-Timba	39.40
6	Bhadarwa-Sankarda	10.00
7	Savli-Pandu-Desar	30.95
8	Vadodara-Waghodia	19.50
9	Palej-Nareshwar	17.70
10	Karjan-Dabhoi	10.26
11	Miyagam-Samni	13.80
12	Karjan-Segwa	29.75
13	Dabhoi-Anandi to Chandod	21.80
14	Dabhoi-Sinor-Malsar	31.00
15	Boriad-Kawant	24.00
16	Kawant-Renda	13.25
17	Wadia-Boriad	20.80
	Others (below 10 km.)	30.91
	Total	440.07

Source : Executive Engineer, Panchayat Division, Vadodara.

STATEMENT VII-2

Other District Roads, 1973

Sl. No. 1	Name of the road 2	Total length (in Km.) 3
1	Vadodara Road	16.20
2	Jambuvā-Karvan Road	16.00
3	Race course-Jaspur Road	11.20
4	State High way to Kural Sokhada Road	11.00
5	Ajwa road junction to Jarod-Samlaya-Savli- Road	26.50
6	Rawal-Kherwadi Road	26.50
7	Sangadol-Rustampura Road	16.00
8	Savli-Bhadarwa Road	11.25
9	Ajwa-Rameshwara-Goraj Road	12.25
10	Tundav-Rania Road	15.00
11	Simalia-Kherwadi Road	11.25
12	Manglej-Simili Road	17.00
13	Choranda-Ranapura Road	10.40
14	Bahadarpur-Vasna Road	27.75
15	Sankheda-Katholi Road	13.60
16	Bhilapur - Rajli - Angut- Bhekhada Road	20.15
17	Gangadia-Vajiria Road	15.20
18	Bodeli Kawant Road	15.50
19	Jetpur-Kadwal Road	25.00
20	Jabugam-Chalamali Road	18.00
21	Kosindra-Bhakha Road	22.50
22	Panimines-Bhikhapura Road	10.00
23	Dungarwant-Dhorisimal Road	10.00
24	Dungarwant-Jambughoda Road	10.00

STATEMENT VII-2—contd.

Sl. No. 1	Name of the road 2	Total length (in Km.) 3
25	Bodoli-Kawant Road	40.00
26	Tojgadh-Bhilpur—Zoz Road	10.25
27	Tojgadh-Kikawala Road	10.50
28	Zoz-Mithibor Road	13.00
29	Panvad-Chalamli Road	22.00
30	Dovhat-Zoz Road	13.00
31	Sangpur-Kawant Road	13.00
32	Khandha-Dugdha Road	13.60
33	Naswadi-Tanakhala Road	10.00
34	Tanakhala-Dugdha Road	12.00
	Others (below 10 km.)	139.45
	Total	685.05

Source : Executive Engineer, Panchayat Division, Vadodara.

STATEMENT VII-3

Village Roads, 1973

Sl. No. 1	Name 2	Total length (in Km.) 3
1	Tarsali-Saled Road	15.00
2	Padra-Itola Road	13.00
3	Bhoj-Shehra Road	10.00
4	Vyankatpura-Karmasia Road	15.00
5	Samlaya-Rampura Road	13.00
6	Vasanpura-Samlaya Road	10.00
7	Handod-Kotali Road	11.65
8	Sankheda-Bodoli Road	17.30
9	Handod-Bhatpur Road	18.10
10	Jojwa-Targol Road	12.00
	Others (below 10 km.)	556.11
	Total	691.16

Source : Executive Engineer, Panchayat Division, Vadodara.

STATEMENT VII-4

Passenger and Goods Traffic, 1973

Sl. No. 1	Name of the Section 2	Name of Station 3	Total Passenger Traffic (outward and inward) 4	Goods Traffic in M. Tons. (outward and inward) 5
1	Bombay Central—Vadodara Mathura-Delhi (B. G.)	1 Lakodra	..	..
		2 Miyagam-Karjan	..	..
		3 Kashipura-Sarar	1,80,635	..
		4 Itola	1,96,978	817
		5 Varnama	67,484	..
		6 Makarpura	61,453	..
		7 Vishvamitri	2,48,974	4,935
		8 Vadodara	73,71,565	1,22,053
		9 Chhayapuri	94,061	..
		10 Pilol	67,280	..
		11 Alindra Road	52,558	..
		12 Samlaya	3,53,722	11,215
		13 Lotana	23,253	..
		14 Champaner Road	1,70,705	587
2	Vadodara—Viramgam	1 Bajava	7,09,354	9,921
		2 Ranoli	4,94,673	4,936
3	Jambusar-Dabhoi—Chhota-Udepur	1 Masar Road	2,78,574	3,046
		2 Kural	1,07,118	..
		3 Mobha Road	3,52,148	12,210
		4 Banu-Pipri	4,36,326	15
		5 Bhoj-Padra	1,55,715	12
		6 Latipura	88,592	..
		7 Padra	6,43,697	29,239
		8 Bhaili	81,860	3,361
		9 Atladara	,231	..
		10 Pratapnagar	0,474	6,097
		11 Kelanpur	99,798	..
		12 Kundhela	1,69,032	..

STATEMENT VII-4—*contd.*

Sl. No. 1	Name of the Section 2	Name of Station 3	Total Passenger Traffic (outward and inward) 4	Goods Traffic in M. Tons outward and inward 5
		13 Bhilapur ..	1,50,931	..
		14 Thuwavi ..	9,11,817	..
		15 Fartikui ..	24,492	..
		16 Dabhoi ..	28,24,234	15,481
		17 Vadhavana ..	96,802	..
		18 Annapur (Majrol)	91,428	..
		19 Sankheda }	5,56,656	4,576
		20 Bahadarpur }		
		21 Chhuchhapura ..	2,13,415	..
		22 Jojwa ..	1,22,576	..
		23 Bodeli ..	5,75,224	15,099
		24 Jabugam ..	1,93,432	..
		25 Suskal ..	62,124	..
		26 Pavi ..	1,96,036	1,446
		27 Tejgadh ..	91,098	175
		28 Puniavant ..	8,518	..
		29 Chhota Udepur ..	1,96,770	..
4	Chandod ..	1 Chandod ..	3,26,858	337
	Miyagam-Karjan ..	2 Ten-Talav ..	58,436	..
	Malsar ..	3 Vadaj ..	36,528	..
		4 Nada ..	1,55,943	..
		5 Baripur ..	2,74,291	71.85
		6 Patikha ..	1,68,448	195.11
		7 Karvan ..	2,72,601	118.98
		8 Ganpatpura ..	1,75,281	4.80
		9 Kandari ..	35,100	..
		10 Bharathali ..	40,257	..
		11 Choranda ..	2,51,133	33.44
		12 Vemar ..	1,12,231	..
		13 Tarua ..	66,030	..
		14 Sadhli ..	1,83,952	3,606.7
		15 Majrol ..	24,020	..
		16 Sinor ..	2,33,330	58.58
		17 Malsar ..	1,01,865	..

STATEMENT VII-4—*concl.*

Sl. No. 1	Name of the Section 2	Name of Station 3	Total Passenger Traffic (outward and inward) 4	Goods Traffic in M. Tons outward and inward 5
5	Miyagam-Karjan ..	1 Moti Koral ..	1,32,963	36.4
		2 Nareshwar ..	91,088	105.41
		3 Saniad ..	1,27,934	11.68
6	Dabhoi-Samlaya-	4 Bachar ..	1,47,802	5.15
		1 Prayagpur ..	25,135	..
		2 Karamaliyapur ..	1,12,821	..
		3 Antoli ..	93,517	752
		4 Vaghodia ..	3,10,193	752
		5 Ajwa ..	76,622	15
		Vyankatpura ..	21,216	..
		7 Jarod ..	1,77,808	55
		8 Karachia ..	21,481	..
		9 Savli ..	2,68,460	1,122
		10 Muval Tank ..	9,555	..
		11 Wasanpura ..	42,059	..
		12 Sandasal ..	1,44,648	425
		13 Pandu-Mowas ..	57,737	..
		14 Desar Road ..	49,948	233
		15 Vejpur ..	56,516	..
		16 Tulsigam ..	10,463	..
7	Chhuchhapura- ..	1 Tankhala ..	74,981	1,117
		2 Samdhia ..	29,133	..
		3 Naswadi ..	2,27,845	1,519
		4 Kaledia ..	91,136	9,545
		5 Ghanoli ..	48,613	15
		6 Bhatpur ..	1,40,910	21
		7 Khunwad ..	8,784	..
		8 Gojpur-Sankheda ..	1,52,162	576
8	Champaner ..	1 Panimines ..	81,756	1,788
	Panimines			
	Total ..	..	2,44,05,803	2,67,740

Source :

Divisional Superintendent, Western Railway, Vadodara.

STATEMENT VII-5

Major Bridges and Causeways, 1973

Sl. No. 1	Bridge/Causeway 2	Name of the road 3	Category of road 4	River/Nallah 5	Length of bridge 6	Year of construction 7
A—BRIDGES UNDER PUBLIC WORKS DEPARTMENT						
1	Mahi Bridge	National Highway No. 8 Section Vasad-Vadodara	N. H.	Mahi river	1760'-0"	1960
2	Mini	"	"	Mini	112'-0"	1971
3	Jambuva	"	"	Jambuva	201'-0"	1966
4	Dhadhar	"	"	Dhadhar	228'-0"	1966
5	Rangao	"	"	Rangao	202'-0"	1960
6	Surya	Vadodara Khandowadi link road	S. H.	Surya	108'-0"	..
7	Jambuva	Vadodara Ferkuwa	S.H.	Jambuva River	200'-0"	1972
8	Dhadhar	"	"	Dhadhar	..	1966
9	Melia	"	"	Melia	300'-0"	1966
10	Bharaj	"	"	Bharaj	765'-0"	1966
11	Waswa	"	"	Waswa	123'-0"	1966
12	Ani	"	"	Ani	405'-0"	1969
13	Zarva	"	"	Zarva	360'-0"	1969
14	Orsang bridge	"	"	Orsang	650'-0"	1966
15	Suwal	"	"	Suwal	280'-0"	1960
16	Sokta	"	"	Sokta	385'-0"	1966
17	Ferkuwa	"	"	Ferkuwa	240'-0"	1966
18	Orsang	"	"	Orsang	1245'-0"	1966
		Bodeli Tilakwada road.				
19	Heran	"	"	Heran	600'-0"	1972
20	Men	"	"	Men	300'-0"	1969
21	Ruwel	"	"	Ruwel Kotar	150'-0"	..
22	Orsang	Dabhoi-Tilakwada	"	Orsang River	1265'-0"	..

STATEMENT VII-5—contd.

Sl. No. 1	Bridge/Causeway 2	Name of the road 3	Category of road 4	River/Nallah 5	Length of bridge 6	Year of construction 7
23	Ashwin	do	do	Ashwin	..	1972
24	Ani	Chhota Udepur-Kevdi	do	Ani	..	1960
25	Suket	do	do	Suket	..	1960
26	Waswa	do	do	Waswa	..	..
27	Orsang	Chhota-Udepur-Hamfeshwar road.	M. D. R.	Orsang	..	1960
28	Dhamni	do	do	Dhamni	300'-0"	1974
29	Heran	do	do	Heran	300'-0"	1974
30	Kara	do	do	Kara	350'-0"	1974
31	Sapan	do	do	Sapan	150'-0'	1972
B—BRIDGES UNDER-DISTRICT PANCHAYAT VADODARA						
1	Submersible bridge	Jambuva-Karvan	O. D. R.	Dhadhar River	164'-50'	Not available
2	"	Tarsali-Salad	V. R.	do	167'-00'	"
3	Causeway	"	"	Local Kotar	77'-00'	"
4	Submersible bridge	Vadodara (Gotri Sevasi)-Sindhrot	"	Mini River	160'-00'	1972
5	Minor bridge	Makarpura-Dhani-yavi	"	Jambuva River	191'-00'	Not available
6	Minor bridge	Harni-Virod	"	Vishwamitri	167'-50'	"
7	Causeway	Palej-Nareshvar	M. D. R.	Nallah Bhukhi Kotar	50'-00'	"
8	Bridge	do	"	Kalia Kotar	110'-00'	1943
9	Bridge	Vadodara-Timba Road	"	Karad River	450'-00"	1970-71
10	Bridge	do	"	Meshri River	455'-00'	1972-73
11	Bridge	Vadodara-Savali	"	Mini River	60'-0'	Not available
12	Causeway	Savali-Desar	"	Kawatch	230' 00'	1970-71
13	Causeway	Savali-Desar	"	Meshri	165' 00'	1970-71
14	Causeway	Gardhiya approach road	V. R.	Nallah	115'-0'	1770-71
15	Causeway	Jarod-Samlaya	O. D. R.	Vishwamitri River	75'-0'	Not available

Source : Executive Engineer, Roads and Buildings, Public Works Department, Vadodara.

STATEMENT VII-5—concl'd.

Sl. No. 1	Bridge/Causeway 2	Name of the road 3	Category of road 4	River/Nullah 5	Length of bridge 6	Year of construction 7
16	Causeway	Savali-Timba Road	M. D. R.	Local Kotar	200'00'	Not available
17	Causeway	Rawal-Kherwadi	O. D. R.	Dov River	160'00'	"
18	Causeway	Rawal-Kherwadi	O. D. R.	Jambua River	50'00'	"
19	Causeway	Ajwa junction to Jarod	O. D. R.	Surya River	48'00'	"
20	Causeway	Rasulabad Vyan-katpura	O. D. R.	Surya River	61'05'	"
21	Causeway	Khandivada-Sarneji	V. R.	Vishwamitri	55'0'	1970-71
22	Bridge	Por to Sinor	M. D. R.	Rangao Kotar	140'00'	1934-35
23	Bridge	—do—	M. D. R.	Bhukhi	60'00'	1946-47
24	Submersible bridge	Kosindra Shaka	O. D. R.	Heran River	405'	1971-72
25	Causeway	Sankhoda-Katholi	O. D. R.	Heran River	125'	1936-67
26	Causeway	Simaliya-Kherwadi	O. D. R.	Dhadhar River	120'	1970-71
27	Causeway	Harshwar-Kherwadi	O. D. R.	Dhadhar River	75'	1970-71
28	Causeway	Gola Gamdi-Rustampura Road	O. D. R.	Dhadhar River	60'	1966-67
29	Causeway	Bhadarpur-Vasana	O. D. R.	Local Kotar	75'	1967-68
30	Causeway	Vadia-Boriad	M. D. R.	Tolav Kotar	30'	1938-39
31	Causeway	—do—	M. D. R.	Belasani Kotar	50'	1939-40
32	Causeway	Boriyad-Kavant	M. D. R.	Wagach Kotar	40'	1967
33	Causeway	—do—	M. D. R.	Aswin River	60'	1967
34	Causeway	Jetpur-Vadia	M. D. R.	Uchad Kotar	28'	1938
35	Causeway	Gangadiya-Vajiriyi	O. D. R.	Ashwin River	70'	1966
36	Causeway	Tajgadhi (Palsanda)-Kikawada	O. D. R.	Local Kotar	240'	1971-72
37	Causeway	—do—	O. D. R.	Local Kotar	120'	1971-72
38	Causeway	Jetpur-Chalamali	O. D. R.	Local Kotar	175'	1971-72
39	Causeway	Boriyad-Kavant	M. D. R.	Rami Kotar	110'	1968-69
40	Causeway	—do—	M. D. R.	Sukhad Kotar	120'	1968-69
41	Causeway	Jabugam-Chalamali	O. D. R.	Local Kotar	140'	1970-71

Source :

- (i) Executive Engineer, Road and Buildings, Vadodara Division, Vadodara.
- (ii) Executive Engineer, Vadodara District Panchayat, Vadodara.

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

DISTRIBUTION OF WORKERS ACCORDING TO OCCUPATIONAL DIVISIONS

Before the occupational divisions are discussed, it is necessary to know the connotation of the word, 'occupation'. The word occupation connotes the exact function of a person such as a carpenter, a fitter, a mechanic, etc. The distribution of workers according to occupational divisions is shown in the Statement VIII.1 appended to the chapter.

According to the 1961 Census returns, there were 214,622 workers engaged in different occupations in the whole district. Of these, 114,532 workers were from the urban areas and 100,090 from the rural areas of the district. The largest number of workers was found in the occupations relating to craftsmen, production process workers and labourers not classified elsewhere (44,839). They were followed by sales workers (16,507), clerical and related workers (14,428), and workers engaged in sports and recreation services (12,360), etc. If we consider the distribution of occupations in urban areas alone, it can be said that as the nature of occupation commands, the number of workers engaged in sales services, those in transport, storage and communications services, and persons in medical profession such as physicians, surgeons and dentists was higher in the urban areas than in the rural areas. The urban areas provide incentives for getting better returns in these occupations. People in rural areas prefer to visit doctors only as a last resort. Similarly, midwives and other health technicians were found more in the urban areas because of concentration of hospitals and nursing homes in the cities, which require service of these personnel in large numbers. In rural areas they are attached to the public health centres and cottage hospitals.

The figures for miscellaneous occupations for 1971 Census are available for the urban areas in the State only. The classification of the 1971 Census is as follows.

There were 149,355 workers (provisional) engaged in the urban areas according to 1971 Census, the largest number of workers was found in the occupations relating to craftsmen, production process workers (56,850). They were followed by sales workers (21,497), clerical and related workers (18,320), service, sports and recreation workers (16,747) and teachers (6,284).

INDUSTRIAL ESTABLISHMENTS

The 1961 Census made a beginning in enlisting the industrial establishments and the number of persons working under each of them. In the 1971 Census also similar data have been collected but detailed description is not available and industries have been classified into broad groups. A brief description of types of industrial establishments in existence in the Vadodara district together with the employment provided by them is briefly described below.

The total number of industrial establishments increased from 4,236 to 10,245 and the number of persons employed rose from 32,819 to 64,334 in a decade, i. e., 1961-71. Apart from the traditional establishments concerning manufacture of pottery articles, food and food products, edible oils and fats, leather goods, footwear, gold and silversmithy, etc., the district has witnessed rapid industrial expansion with the establishment of petroleum refinery, fertiliser production unit, petrochemicals complex and defence goods unit. Further, Vadodara is a centre reputed for production of pharmaceutical products. The Textile and Allied Industries Research Organisation (TAIRO), which is the joint venture of the University and industrialists in the city, promotes industrial textile research. Further, Vadodara has also a flourishing industry manufacturing optical glasses.

With the change in the habits of persons, cigarette smoking, use of bakery products such as biscuits and bread, articles of furniture, finer varieties of textiles inclusive of those woven with synthetic fibres, use of detergent and cosmetics and toilet products, use of bicycles, watches and clocks, motor and other automobile vehicles, etc., is discernible in the establishments and expansion of industries in these fields. Industrialisation, coming in the wake of Planning, is also reflected in the setting up of heavy electrical machinery plant and heavy water plant, etc.

Some of the major industrial units classified by the 1971 Census are shown below :

STATEMENT VIII-2

Selected Industrial Establishments in Vadodara District, 1971.

Sl. No. 1	Major Group of Industry 2	Total No. of establishments 3	No. of persons engaged 4
1	Manufacture of cotton textiles ..	174	10,924
2	Manufacture of chemicals and chemical products (except products of Petroleum and Coal) ..	132	8,541
3	Manufacture of machinery, machine tools and parts except electrical machinery ..	281	7,028

STATEMENT VII-2—contd.

Sl. No. 1	Major Group of Industry 2	Total No. of establishments 3	No. of persons engaged 4
4	Manufacture of non-metallic mineral products ..	887	5,692
5	Manufacture of food products ..	1,763	5,092
6	Manufacture of metal products and parts except machinery and transport equipment ..	727	4,113
7	Manufacture of textile products (including wearing apparel other than footwear) ..	2,628	3,969
Total		6,532	45,359

Source : Census of India, 1971, *Administrative Atlas*, p. 88.

EARNED PROFESSIONS

Teachers

As a result of expansion of educational facilities and introduction of compulsory primary education since Independence, the number of teachers in primary, secondary and higher education has increased considerably. Schools are now opened in villages, which cater to the needs of the children in the rural areas. As a result, the number of teachers increased from 7,653 in 1961 to 10,960 in 1975. Among these the number of women teachers was 1,867 in 1961 and 3,740 in 1975. Further, the number of primary teachers increased by 2,769 and that of secondary teachers by 1,733 during the same period. The teachers in higher education increased from 610 in 1961 to 1,000 in 1971. Vadodara houses a residential university and the strength of university teachers was 853 in 1974-75.

Lawyers

There were 365 lawyers and advocates, twenty judges and magistrates, ten law assistants and 155 jurists according to the 1971 Census. Vadodara, being the headquarters of the district, naturally had the largest number of such practitioners. On account of spread of education among women, it has become usual to find women advocates practising in the different courts in contrast to none about fifty years back.

Doctors

In modern times, the medical practitioners occupy a coveted position in the society. Generally the persons engaged in this profession prefer to work in urban areas where there are greater opportunities for conducting medical practice. Further, hospitals and private nursing homes are concentrated in

the urban areas, thus accounting for similar higher number of medical personnel therein.

According to the 1951 Census the number of doctors was 686, of whom 54 were women. The number of nurses was 75.1. In 1961 these figures rose to 824 doctors and 1,225 nurses, pharmacists and other health technicians in the whole district.

The figures for the 1971 Census are available for urban areas only. As stated above there were 589 physicians and surgeons including 48 women and 835 nurses, pharmacists, and other medical and health technicians in the urban areas of the district according to the 1961 Census. The number of doctors increased to 1,213 and that of nurses and other medical and health technicians to 1,154 according to the 1971 Census. The total strength of persons in the medical profession in the urban areas of the district rose from 1,424 in 1961 to 2,367 in 1971. The following statement shows the number of medical personnel in the urban areas in 1961 and 1971.

STATEMENT VIII-3

Persons engaged in Medical Profession, 1961 and 1971

(URBAN AREAS ONLY)

Sl. No. 1	Group 2	1961			1971		
		Males 3	Females 4	Total 5	Males 6	Females 7	Total 8
1	Physicians, Surgeons, Dentists (including Veterinary Surgeons), Medical and Technical Persons	541	48	589	1,083	130	1,213
2	Nursing and other Medical and Health Technicians	515	320	835	639	515	1,154
	Total	1,056	368	1,424	1,722	645	2,367

Source :

1. *District Census Handbook* 1961, Baroda District, pp. 54-55.
2. Census 1971, B-V, Part-A, (Urban), Vadodara District, (provisional figures).

As on 30th Augut 1978, there were 60 surgeons, physicians and other specialists, *vaidyas*, midwives, health technicians and internees numbered 268.²

PUBLIC ADMINISTRATION

Public administration jobs especially in the Government departments are highly preferred by the educated people as they are secured jobs. Moreover, these jobs offer facilities of earning pension and gratuity after retirement from service which assure regular income to a retired person. These help to reduce his/her dependence on the other earning members of his/her family.

1. *District Census Handbook* 1951, Baroda District, pp. 71-73.
2. District Health Officer, Vadodara.

According to the 1961 Census, 1,933 officers were engaged in the whole district in the offices of the Central Government, State Government and other public bodies. Of these 711 constituted the strength of officials in the urban areas of the district. Since figures for the 1971 Census are available for the Urban areas only, it can be said that the strength of managerial personal increased from 711 in 1961 to 2,177 in 1971. Similarly the rest of the staff in the urban areas of the district was 11,426 persons in 1961 and 18,302 in 1971.

AMENITIES TO PUBLIC SERVANTS

Besides providing such allowances as dearness, house-rent and compensatory, the State Government has also made provision for granting loans to its servants for constructing residential buildings, purchase of vehicles, purchase of foodgrains, electric fan, etc. Government servants are provided residential accommodation wherever possible. Moreover, the Government servants are allowed free medical treatment at Government hospitals and dispensaries. They are allowed to reimburse expenses incurred by them for medical treatment of themselves and their family members at institutions authorised by the Government. In addition to this, concessions of leave on average pay for a period of one year and extra-ordinary leave for another year are also available to the Government servants suffering from T. B. The Government also pays certain charges like the sanatorium and in cases, a fixed amount is paid for special diet, and medicines prescribed for the recovery of the T. B. patients during the period of convalescence.

In addition to the above benefits, Government servants are now granted travel concessions for visit to their home towns once in every two years. They are also allowed to encash the whole or part of the earned leave surrendered to Government for a maximum of 30 days, once in every two years. This scheme came into force from January 1971.

The Central Government and the statutory corporations, like the Life Insurance Corporation, have similar schemes to provide relief to their employees.

OCCUPATION AND SOCIAL CHANGE

There are certain occupations which are strictly hereditary in letter and spirit, and the winds of change had had no perceptible influence. Literally such occupations are confined to blacksmithy, pottery, tailoring, bakery, carpentry, and to some extent hair-cutting, though tailoring has come under the influence of changing pattern in the occupational structure and the person of other castes also take up tailoring as a means of livelihood. In the same way, the sons of blacksmith, barber, etc., do not necessarily follow the profession of their forefathers.

However, there are certain occupations which have changed considerably, on account of influence of social reformers including Mahatma Gandhiji. This has led to spread of education among women, who have become very much sensitive and conscious of their rights and privileges. The social taboos attached to female education in the past has disappeared. Women are now found in almost all professions as Government servants, as medical practitioners, engineers, advocates, teachers, etc.

SELECTED MISCELLANEOUS OCCUPATIONS

The information furnished by the Municipal Corporation at Vadodara and the Dabhoi Municipality is embodied in the Statement VIII-4 that follows.

The statement reveals that in the year 1974-75, among the total number of occupations, hotels, lodging and boarding houses, restaurants and aerated water establishments accounted for 22.36 per cent, tailoring 17.77 per cent, *pan-bidi* 15.76 per cent, and cycle repairing 11.07 per cent. These could be ranked among the popular establishments which jointly accounted for 66.96 per cent and engaged a total of 74.18 per cent of workers among all the miscellaneous occupations.

Considering their prominent urban characteristics, Vadodara city and the Dabhoi town were selected for assessing the working of certain selected occupations.

STATEMENT VIII-4

Persons engaged in certain Selected Occupations in Vadodara and Dabhoi, 1974-75

Sl. No.	Occupations	No. of establishments	Percentage to total No. of establishments	Persons employed inclusive of employer				Percentage to total No. of persons employed
				Males	Females	Children	Total	
1	2	3	4	5	6	7	8	9
1	Bakeries	..	61	1.36	162	..	..	1.18
2	(a) Hotels, (b) lodging and boarding houses, (c) restaurants and (d) aerated waters	..	1,000	22.36	5,960	85	..	44.07
3	Sweets and <i>farsans</i>	221	4.94	451	20	..	471	3.43

STATEMENT VIII-4—contd.

Sl. No.	Occupations	No. of establishments	Percentage to total No. of establishments	Persons employed inclusive of employer			Total	Percentage to total No. of persons employed
				Males	Females	Children		
1	2	3	4	5	6	7	8	9
4	<i>Pan-bidi</i>	..	705	15.76	1,022	..	1,022	7.45
5	Hair cutting saloons	..	381	8.52	889	..	889	6.48
6	Flour mills	..	208	4.65	501	..	501	3.65
7	Goldsmiths	..	238	5.32	327	..	327	2.39
8	Laundries	..	224	5.01	600	4	604	4.40
9	Cycle-repairing	..	495	11.07	844	..	844	6.15
10	Tailoring	..	795	17.77	2,217	47	2,264	16.51
11	Mattresses and Pillow makers	..	19	0.42	49	..	49	0.36
12	Dyeing and printing	..	126	2.82	539	..	539	3.93
	Total	..	4,473	100.00	13,561	156	13,717	100.00

Source : Chief Officers, Vadodara and Dabhoi Municipalities, Vadodara District.

A sample survey of these occupations, one each in large, medium and small categories was undertaken in the month of April, 1974. The selection of occupations was made on the basis of income derived by each of the owners. The results of the survey are generalised below.

1. *Hotels, Lodging and Boarding Houses and Restaurants and Manufacture of Aerated Waters*—There were 1,000 establishments in the Vadodara city and Dabhoi town which engaged 6,045 persons inclusive of 85 women. The survey disclosed that these establishments were managed mostly by the owners themselves, but the bigger ones engaged private labour on wages. Generally higher wages were paid to males as compared to females. The lodging and boarding houses engaged females for cleaning the utensils and cooking the food. Most of the establishments were housed in rented premises and the rent charged varied from Rs. 12 for a small shop to Rs. 1,200 for a large and luxurious concern. The gross income of an individual establishment ranged between Rs. 300 to 5,000 per month depending upon its size, location, popularity, delicious varieties served and services offered to customers. Instead of traditional drinks, people now prefer *cocacola*, *fanta*, *rim-zim*, etc. It was observed, however, that the people in Dabhoi town appeared to be more interested in traditional

aerated waters like soda, lemon, etc. There is the Baroda Hotel Owners' Association and the Dabhoi Hotel Association for the common benefit of members. The owners of the lodging and boarding houses have reported that their business had been adversely affected on account of price rise and development of road transport facilities, because prospective customers could reach their destinations (homes) generally before the evening meals and avoided visiting the boarding houses.

2. *Tailoring* The total number of tailoring units was 795 which employed 2,264 persons. A majority of them was found to be sole proprietorship concerns. But taking minor works such as fixing of buttons, repairing of garments, etc., on daily wages was not uncommon with larger establishments. Sometimes members of the family were also engaged on such work to meet customers' demands for occasions like marriage and festivals. There are quite a good number of modern tailoring shops in the city. Some of these establishments were housed in owned premises. The gross earnings of an individual shop varied from Rs. 600 to Rs. 7,735 per month depending upon its popularity and quality of garments stitched. Those housed in rented premises paid Rs. 50 to Rs. 225 per month individually as rent.

The usual dress of younger generation has undergone a change on account of several factors, among which influence of movies cannot be ruled out. The tailoring profession had, therefore, to adopt changing fashions in the garments stitched or made to order. Among the tailors, those engaged in preparing garments for ladies, earned more as compared to others. There is no association of the tailors either in the Vadodara city or in the Dabhoi town.

3. *Hair-cutting Saloons*—There were 381 hair-cutting saloons scattered in different localities and mostly run as proprietary establishments. A majority of them was housed in rented premises paying rent ranging from Rs. 20 to Rs. 41 per month individually. The gross income of an individual establishment reported to vary from Rs. 300 to Rs. 750 per month depending upon the location, size and popularity. It was reported by the owners that on account of recent trends in hair styles of men their business had been adversely affected. There are the Vadodara Hair-Cutting Saloon Association and the Dabhoi Valand Association in Dabhoi for redressal of common grievances of members.

4. *Goldsmithy*—There were 238 establishments of goldsmiths in Vadodara and Dabhoi. A majority of them employed family members. These shops were housed in premises on a monthly rent varying from Rs. 17 to Rs. 400 per month paid by individual owners of such shops. The gross monthly income of an individual goldsmith varied from Rs. 150

to Rs. 9,000 per month. Those who sold ready-made ornaments had even larger monthly incomes during the marriage season and in festivals like Diwali. The goldsmiths' business has been reported to be adversely affected on account of Gold Control Order, 1963. Further, on account of recent abnormal prices of gold, people especially women, have adopted to wearing ornaments made from silver. The Vadodara Chokshi Mahajan Mandal established about twenty-five years ago, has fifty members at present. The Chokshi Mahajan Mandal at Dabhoi started in 1963-64 has ten members.

5. *Sweet and Farsan Shops*—There were 221 establishments preparing items of sweetmeat and spiced and salty eatables. The business of these concerns remained mostly seasonal, but brisk sales generally took place during the marriage season and in festivals like Diwali, Holi, etc. The gross monthly income of an individual shop varied from Rs. 1,800 to Rs. 12,000 per month depending upon size, situation, popularity and varieties offered to the public. The monthly rent paid by an individual shop varied from Rs. 31 to Rs. 150 per month.

Only big shops employed salaried persons for preparation of various items. Elsewhere, the family members were employed for doing subsidiary works, and also run the shops in the absence of owners. There is the *Vadodara Shaker Mithai Farsan Producers' Association* at Vadodara and the *Dabhoi Farsan-Mithai Owners' Association* at Dabhoi, working for common redressal of grievances.

6. *Bakeries*—There were 61 bakeries employing 162 persons. The items sold were bread, biscuits, cake, pastries, butter, etc. The monthly gross turnover of an individual concern varied from Rs. 3,600 to Rs. 76,500 per month indicating increased use of bread, biscuits and other bakery products among the people. The monthly rent paid by individual shop varied from Rs. 18 to Rs. 175 per month. The *Baroda District Bakery Association* established in 1954, had 54 members. There is no such an association at Dabhoi.

7. *Pan-bidi*—There were 705 *pan-bidi* shops. These shops are the best examples of one-man establishments, run on sole proprietorship basis. These units kept and sold additional items like tobacco, perfumery, cigarettes, *bidi*, match boxes, confectionery, wax candles and other sundry articles as well. It was observed that most of these shops were housed in rented premises or in wooden booths erected on road side, each on a monthly rent varying from Rs. 10 to Rs. 30 per month. The gross earnings of an individual establishment varied from Rs. 750 to Rs. 2,834 per month, depending upon its size, location and popularity. There was no association of *pan-bidi* owners in the Vadodara city or in the Dabhoi town.

8. *Flour Mills* There were 208 flour mills, which employed 501 persons. Most of them were sole proprietary concerns, but the large units employed workers or relatives to meet the demand from the public on festivals and marriage season. The gross monthly earnings of an individual flour mill varied from Rs. 300 to Rs. 1,200 per month. The flour mills lie scattered in different localities in the Vadodara city and the Dabhoi town and the rent paid varied from Rs. 12 to Rs. 51 and above per month individually, depending upon its location. There is the *Vadodara Flour Mills' Association* at Vadodara established in 1968, for common benefit of members.

9. *Cycle Repairing* There were 495 cycle repairing shops employing 844 persons. Such a large number of these concerns indicates the increased use of bicycles made by the public in these towns. Some of the big concerns were reported to sell new bicycles and supply them on hire, besides attending to the repairs. A majority of them was housed in rented premises, and paid monthly rent varying from Rs. 20 to 300 per month individually depending upon its size and location. The gross monthly earnings of an individual concern varied from Rs. 350 to Rs. 51,000 per month. The concerns which sold new bicycles had even larger turnover. There is the *Vadodara Cycle Dealers' Association* at Vadodara. The recent price hike in petrol is favourable to the cycle dealers as people would now prefer the bicycle in place of automobile vehicles.

10. *Mattresses and Pillow Makers*—There were 19 establishments in Vadodara and Dabhoi. They were organised on proprietary basis. The survey revealed that the gross monthly income of an individual establishment varied from Rs. 150 to Rs. 8,000 and monthly rent paid by the individual shops ranged from Rs. 30 to 150 per month. These shops were scattered in different localities and were housed mostly in owned premises. There was no association of the owners in this occupation.

11. *Laundries*—There were 224 laundries concentrated in thickly populated localities. They were mostly proprietary concerns and were housed in rented premises, for which rent paid by them varied from Rs. 14 to Rs. 53 individually depending upon the size, location, popularity and rates of washing, dry-cleaning and ironing charged by each of them. The gross monthly income of an individual establishment varied from Rs. 400 to Rs. 3,000. There is the *Vadodara Laundry Association* which was formed in the year 1964. No such association has been reported to be functioning at Dabhoi.

EMPLOYEES' ORGANISATIONS

Since the inauguration of the planning in the country there has been a great expansion of employment in public service at all levels including the Central Government, State Government and the local self-governing bodies

like municipalities, panchayats, etc., as a large manpower was required for implementing various development scheme under the plans. These employees have formed their respective unions for redressal of their common grievances. The association formed by the State Government employees is known as the 'Gujarat Rajya Karmachari Mahamandal' with branches in the districts affiliated to the Mahamandal at the State level. Employees of the Panchayati Raj institutions have also formed similar organisations in various departments. There are also the unions of the Class III employees for the Co-operative Department, at the State level. The Vadodara Jilla Sthanik Swarajya Karmachari Union, Vadodara Jilla Engineering and General Kamdar Union and the Majoor Mahajan Union at Vadodara. The details of other Unions are given below.

STATEMENT VIII-5

Employees' Unions

Sl. No. 1	Name of the Union 2	Date of registration 3	Approximate membership in December, 1973 4
1	Vadodara Jilla Talati Mandal, Vadodara ..	3rd February, 1952	615
2	Vadodara Jilla Live Stock Inspectors' Union, Vadodara ..	10th January, 1971	38
3	Vadodara Jilla Gram Sevak Mandal, Vadodara ..	1st May, 1963 (recognised from 18th July, 1966)	138
4	Vadodara Jilla Panchayat Technical Karmachari Mandal, Vadodara ..	31st March, 1972	88
5	Vadodara Jilla Panchayat Class III Karmachari Mandal, Vadodara ..	4th November, 1970	305
6	Vadodara Harijan Majdoor Sabha, Vadodara ..	1949	250
7	Baroda District Non-Gazetted Revenue Staff (Class III) Association, Vadodara ..	28th October, 1958	..
8	Vadodra State Electric Works Union, Vadodara ..	1948	380
9	Vadodara Shaher Sudharai Nokar Mandal, Vadodara ..	30th June, 1948	905
10	Vadodara Shaher Safai Kamdar Sangh, Vadodara ..	29th May, 1953	725
11	Technical Staff Association of Vadodara Municipal Corporation, Vadodara ..	1973	140

Source :

1. District Statistical Officer, Vadodara.
2. Public Relation Officer, Municipal Corporation, Vadodara.

STATEMENT VIII-1

Number of Persons Engaged in Selected Occupations

Sl. No. 1	Occupations 2	(URBAN AREA ONLY)	
		1961 3	1971 4
1	Physicians, Surgeons, Dentists, (including Veterinary Surgeons), Medical and Technical Persons ..	589	1,213
2	Nursing and other Medical Technicians	835	1,154
3	Teachers	4,184	6,284
4	Jurists	310	550
5	Arts, Letters and Science and Related Workers (including Life Scientists, Social Scientists and Professional Workers in Ordained and non-ordained Services) ..	2,935	4,128
6	Salesmen, Shop Assistants, Hawkers and Related Workers ..	16,507	21,497
7	Tailors, Dress makers, Sewers and Related Workers ..	3,054	3,693
8	Jewellery and Precious Metal Workers	961	991
9	Food and Beverage Processors, Millers and Related Workers	1,022	1,671
10	House keepers, Cooks, Waiters and Related Workers ..	2,732	3,980
11	Hair dressers, Barbers and Beauticians	627	884
12	Launderers, Dry cleaners and Pressers, n. e. e. ..	921	1,059
13	Administrative, Executive and Managerial Workers including Executive Officials of Government ..	711	2,177
14	Clerical and Related Workers	14,428	18,302
15	Farmers, Fishermen, Hunters, Loggers and Related Workers	1,469	1,721
16	Miners, Quarrymen and Related Workers	102	454
17	Workers in Transport and Communications	5,912	1,791
18	Craftsmen, Productions Process Workers and Labourers, n. e. e.	44,839	56,850
19	Service, Sports and Recreation Workers	12,360	16,747
20	Workers not classified by Occupations	34	2,538
Total .. ..	.. ..	1,14,532	1,49,355

Source :

1. *District Census Handbook* 1961, Vadodara District, (1964), pp. 54 to 68.
2. Census 1971, B-V, Part A, (Urban), *District Vadodara*, (Provisional figures).

CHAPTER IX
ECONOMIC TRENDS

LIVELIHOOD PATTERN

In any study of the economic growth, man power plays a vital role. The livelihood pattern of the people of any region and the nature and variety of the occupations followed by them are conditioned by the stages of economic development and the extent to which all available resources are utilised for agro-industrial growth of that region.

The general population has been divided into workers and non-workers by the Census. Out of the total population of 1,527,326 and 1,980,065 persons in the district, according to the 1961 and 1971 Censuses respectively, those who were engaged in some kind of economic activity numbered 586,342 and 634,783 or 38.39 and 32.05 per cent as against the State average of 41.07 and 31.45 per cent respectively under these Censuses.

On the basis of economic activities pursued, the workers have been classified into nine categories by the 1961 and 1971 Censuses, as shown in the statement below.

STATEMENT IX-1

Category of Workers and Percentage of Workers, Vadodara District

Sl. No.	Category of workers	Working population						Percentage to total workers		
		Males			Females			Total		
		1961	1971	1961	1971	1961	1971	1961	1971	1971
1	2	3	4	5	6	7	8	9	10	11
1	As cultivators	194,934	202,809	58,461	7,284	253,395	210,093	43.22	33.10	
2	As agricultural labourers	90,518	140,961	71,798	64,005	162,316	204,966	27.68	32.29	
3	In mining, quarrying, livestock, forestry, fishing, hunting, plantations, orchards and allied activities	3,654	6,611	709	524	4,383	7,135	0.74	1.13	
4	At household industry	11,751	10,887	3,928	921	15,679	11,908	2.67	1.88	
5	In manufacturing other than household industry	38,514	64,893	2,256	3,230	40,770	68,123	6.95	10.73	
6	In construction	3,663	7,295	496	830	4,459	8,125	0.71	1.28	
7	In trade and commerce	26,184	39,416	1,694	1,488	27,878	40,904	4.76	6.44	
8	In transport, storage and communications	12,770	18,374	168	314	12,938	18,688	2.21	2.94	
9	In other services	52,501	55,887	12,343	9,004	64,844	64,844	11.06	10.21	
	Total Workers	434,489	547,183	151,853	87,600	586,342	634,783	100.00	100.00	100.00

Source :

1. District Census Handbook 1961, Vadodara, Part II, p. 26.
2. Census of India 1971, Administrative Atlas, Part IX-A, (1972), p. 88.

The Statement IX.2 reveals that males predominate in the working population, in the present context of society because generally females have to confine their activities to household duties. Moreover, as much as 70.90 per cent and 65.39 per cent of the total population was engaged in agricultural pursuits as against the State average of 68.09 and 65.60 per cent during the 1961 and 1971 Censuses respectively. The economy of this district is thus agricultural. The remaining categories of workers accounted for 29.10 and 34.61 per cent in 1961 and 1971 respectively and were distributed into mining, quarrying, household industry, trade and commerce, construction activity, etc.

The following statement based on the figures supplied by the 1961 and 1971 Censuses shows the distribution of workers in rural and urban areas.

STATEMENT IX-2

Category of Workers, Rural/Urban Distribution, 1961 and 1971

Category of workers	Percentage of population					
	Working population		Rural population		Urban population	
	1961	1971	1961	1971	1961	1971
I	2	3	4	5	6	7
Total Workers	38.39	32.05	41.88	33.96	28.45	27.72
(a) <i>Agricultural pursuits</i>	27.22	20.96	36.28	29.22	1.46	2.05
1 As cultivators	16.59	10.61	22.14	14.86	0.82	0.89
2 As agricultural labourers	10.63	10.35	14.14	14.36	0.64	1.16
(b) <i>Non-agricultural pursuits</i>	11.17	11.09	5.60	4.74	26.99	25.67
3 In mining, quarrying, livestock, fishing, plantations, orchards and allied activities	0.29	0.36	0.32	0.44	0.19	0.45
4 At household industry	1.03	0.60	1.03	0.60	1.01	0.56
5 In manufacturing other than household industry	2.67	3.44	0.87	1.20	7.81	8.51
6 In construction	0.27	0.41	0.14	0.17	0.64	0.95
7 In trade and commerce	1.83	2.07	0.81	0.73	4.72	5.07
8 In transport, storage and communications	0.84	0.94	0.23	0.24	2.58	2.51
9 In other services	4.24	3.27	2.20	1.36	10.04	7.62

Source :

1. District Census Handbook 1961, Baroda, p. 26.
2. District Census Handbook 1971, Vadodara, p. 76.

It is evident that agricultural pursuits preponderate in the rural areas where cultivation of land is the prime economic activity of the people, but in the urban areas, it is the non-agricultural pursuits which claimed 26.99 and 25.67 per cent of workers in 1961 and 1971 respectively. This shows that the pressure of population on land is proportionately higher in this district because the district has no deposits of coal, iron, etc., which are very essential for the industrial development of the district. The minerals like dolomite, graphite, limestone, fluorite and quartz are found in the talukas of Chhota-Udepur, Jabugam and Sankheda. The forest area is 8.81 per cent (1969-70). Besides, slow pace of urbanisation and non-availability of cheap electricity are among other factors of lop sided development in the district. The public sector projects are confined to refining oil, petro-chemical complex and fertilisers only, but the industrial base might expand in future in the district.

NON-WORKERS

The number of non-workers, *i. e.*, those not engaged in any economic activity in this district, was 940,984 or 61.61 and 1,345,282 or 67.95 per cent respectively as against the State average of 12,158,762 or 58.93 and 18,301,929 or 68.55 per cent respectively during the 1961 and 1971 Censuses. The higher percentage of non-workers could be attributed to women and children who are among the non-workers. Further women from upper classes and castes generally prefer household duties only. The proportion of economically active population is thus lower in this district than even the State as a whole on account of large number of dependents including students.

PRICES

The prices react to the law of demand and supply. Their impact is felt on the entire economy and is focussed in the levels of living of the people. The present Vadodara district as an economically viable unit came into existence after the merger of the princely States of Vadodara and Chhota Udepur and estate of Sankheda Mewas, Pandu Mewas, Gadh-boriad, etc. It is, therefore, difficult, if not impossible, to attempt a systematic analysis of prices on a comparable basis. An attempt has, however, been made to give a broad outline about prices as far as data are available.

Prior to the development of communications, bullock cart was the only means of transportation. Foodstuffs were cheap when there were no steamers and railways and consequent world-wide commerce. Thus the distance to which agricultural produce could go was limited by the nature of the transport available. The cultivator got but little cash for his produce and all his wants were met by the system of bartering. Things began to change when rail-roads were laid down. The cultivator got greater monetary gain. On account of the American Civil War (1861-64), prices of cotton had increased. Cultivation of cotton was, therefore, preferred by the farmers. The demand for wheat and cotton led to the curtailment in

cultivation of *jowar* and millet. The development of railways led to the opening of new cities and towns, which became centres of trade and industry. The newly established industries, in order to attract labour, offered higher wages. Thus, a farm labourer was tempted to migrate to the industrial centres. As a result agricultural operations began to suffer. The farmer was obliged to offer higher wages to retain the labourers. Fifty years ago prices and wages were low, however, since the famine of 1900 there has been a steady rise in prices of food stuffs and of other articles of daily use like *ghee*, cloth, firewood, oil, etc. It is not possible to attribute price rise to a particular cause but less production due to bad seasons was one of the many causes.¹

In this context the statistics given in the *Imperial Gazetteer* (1908) are helpful in assessing the price situation.

(FIGURES INDICATE SEERS PER RUPEE)

Sl. No.	Year		Wheat	Rice	Bajra	Jowar
1	2		3	4	5	6
1	1902-03	.. ..	11	9	16	18
2	1904-05	.. ..	12	9	14	16

These data show that price per rupee of *bajri* and *jowar* had considerably increased. The Gazetteer mentioned that prices for several years were not available. As far as material condition was concerned Baroda (Vadodara) came next to Navsari. Middle class people lived in reasonable comforts. The condition of farmers was far from happy. They lived in unfurnished houses, ate coarse grain and attired in very simple clothes, but the condition of farm and other labourers was still worse. They lived in poor houses, consumed *kodra* and *jowar* and put on worn out clothes. In 1909-10 the wheat was sold at Rs. 2-5-0 a maund, rice at Rs. 2-1-0, *bajri* at Rs. 1-8-9, *jowar* at Rs. 1-6-0, pulses at Rs. 1-11-10, *ghee* at Rs. 14-9-0 and oil Rs. 8-0-0. Compared to this, in 1919, prices rose considerably as follows. Wheat was sold at Rs. 6-8-0 a maund, rice at Rs. 3-2-6, *bajri* Rs. 6-3-9, *jowar* Rs. 4-6-2, pulses Rs. 4-11-0, *ghee* Rs. 42-8-0 and oil Rs. 18-0-0. The reasons are that consequent upon the development of roads, automobiles began to ply. Further, on account of First World War (1914-18), there were unprecedented exports of grains to the Middle East Countries, inspite of less production. This created scarcity at home and there was the resultant price rise in essential commodities.

“During the last 60 years, this state of things has completely changed. The cultivator gets a greater gain, measured in money, than ever before, but it is doubtful whether his material condition has been improved to an

1. *Gazetteer of Baroda State*. (1946).

extent to any degree corresponding. The scarcity of labour seriously hampers agricultural operations and its increased cost impedes the execution of improvements."¹

Period From 1921-22 to 1946-47

The data about prices prevailing in Vadodara during the period 1921-22 to 1946-47 are collected from the State's Administration Reports and tabulated below.

Year	(LBS/SEERS SOLD PER RUPEE)				
	Rice	Bajri	Jowar	Pulses	Wheat
1921-22	..	11	16½	10	8½
1924-25	..	13½	14½	12	9½
1928-29	..	14	15	19	10
1929-30	..	21	13	18	11
1934-35	..	27	20	24	20
1937-38	..	24	20	24	18
1939-40	..	27	16	25	15
1940-41	..	12	20	23	16
1941-42	..	9	15	16	12
1943-44	..	4	6	7	4
1944-45	..	4	4	4	3
1945-46	..	6	6	8	6
1946-47	..	6	6	5	4

Source :

Baroda State Annual Administration Reports for the years 1921-22 to 1946-47.

The year 1924-25 was a prosperous year in Vadodara. On account of Great Depression in 1929 prices of foodstuffs had declined considerably, which lasted almost till 1939-40. Thereafter, on account of operations of War, and difficulties of transport, prices of the staple foodstuffs had risen markedly in 1940-41 and 1941-42. From 1943-44 onwards prices of all products had reached unprecedented heights due to abnormal conditions. Although producers were unwilling to bring out their produce the deficit could not be made good due to transport difficulties. The reason was that there were large exports of foodgrains to East Africa and Middle East for feeding armed forces. This gave rise to black marketing. The Government sought to control prices by the Price Control Act. Thus artificial scarcity was created at home. Though imports were substituted yet it had hardly any effects on price movements. The State Government took steps to control the high prices by enforcing measures like procurement, price control and distribution through fair price shops. These were : (1) grow more food campaign, (2) importing foodgrains from outside the State, and (3) distribution of available supplies on an equitable basis. Full

¹ DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. I, (1923), p. 301.

fledged rationing was introduced in Vadodara City from 1st August, 1945 for the distribution of foodgrains, sugar and *gur* at controlled rates and were distributed through cheap grain shops, ration shops and co-operative societies. In the rest of district, Government controlled and aided agencies and private individuals ran cheap grain and fair price shops for the distribution of foodgrains. Special relief measures were adopted for the Government servants, lower middle class people, etc. The lower middle class people were supplied foodgrains at subsidised rates. Moreover, rationing of cloth was also introduced throughout the State and its export was strictly restricted and vigilance was kept over such movements of cloth.

Chhota Udepur

Prices of foodgrains prevailing during the years 1941-42 and 1942-43 are shown below. It can be seen that in almost all cases prices have increased.

Price of Staple Foodgrains in Chhota Udepur

Articles	(RATE PER MAUND)	
	During March 1941-42	1942-43
	Rs. A. P.	Rs. A. P.
<i>Bajri</i>	2-0-0	2-12-0
<i>Banti</i>	1-8-0	2-5-0
<i>Gram</i>	1-0-0	1-8-0
<i>Jowar</i>	2-0-0	2-8-0
<i>Kodra</i>	1-4-0	2-4-0
<i>Maize</i>	1-0-0	1-7-0
<i>Math</i>	1-8-0	2-8-0
<i>Pulse (Gram)</i>	1-4-0	1-15-0
<i>Pulse (Mug)</i>	3-0-0	4-0-0
<i>Pulse (Toover)</i>	3-0-0	5-8-0
<i>Rice (inferior)</i>	3-12-0	5-4-0
<i>Rice (Kamod)</i>	4-8-0	5-8-0
<i>Samel</i>	1-0-0	1-8-0
<i>Wheat</i>	3-0-0	4-6-0

Source : *Chhota Udepur State Annual Administration Report, 1942-43*

Period From 1947 to 1972

The Second World War ended in 1945. After Independence (1947), the country was partitioned, and nation's economy was subjected to unprecedented stresses and strains as a result of influx of a large number of refugees from Pakistan. Moreover, the Government accepted the principles of planned development of the country for raising the standards of living of the people. The Vadodara State was merged into the Bombay Province from 1st May, 1949. After the merger, effects of prices and of fiscal policies as in other parts of the country began to be felt in the Vadodara territory. There were

large investments in agriculture, industry, irrigation projects, public works, etc. The gain from these investments was not available immediately. The result was that there was a general accentuation of price level in the whole country and Vadodara was no exception. The country's population consistently increased since 1931. Moreover, on account of the Second World War and the implementation of the Five Year Plans, there has generally been an increase in the *per capita* income of all classes of people including agriculturists. Though production of essential foodgrains has increased substantially as compared to the pre-Independence day the demand had also become wide spread. On account of rise in prices and general prosperity, the capacity of large cultivators in holding stocks with a view to getting better returns at a future date, have increased since the War. The wholesale traders also reacted in the like manner creating artificial scarcity. To off set the ill effects of price-rise, imports of foodgrains from foreign countries particularly U. S. A. were resorted to. This kept prices under a reasonable check. The Government increased the Bank rate in 1952 as an anti-inflationary measure. The price of staple grains declined abruptly. Rationing was removed all over the country in 1954 on account of good harvests, but since 1956 and more particularly after 1965 the prices have risen steeply to the detriment of people in the lower and middle classes. In order to provide relief to these people, Government has started fair price shops which sell foodgrains at rates fixed by Government.

Against this background, the position about the prices of important agricultural commodities during the years 1949-50 to 1961-62 and 1962 to 1972 are given in the following statements.

STATEMENT IX-3

Price of Food-Grains from 1949-50 to 1961-62

(PRICES IN RS. AND PAISE)								
Crop/Year	Rice (Paddy)	Wheat	Jowar	Bajri	Maize	Kodra	Tur-dal	Gram
1949-50	.. 14.56	17.69	11.87	12.87	10.00	9.06	19.37	18.00
1950-51	.. 14.58	18.44	11.87	12.87	10.00	..	19.37	20.00
1951-52	.. 14.75	18.44	12.06	13.31	10.19	18.19	18.37	18.69
1952-53	.. 17.62	18.87	11.00	13.31	..	12.50	15.81	21.75
1953-54	.. 14.50	16.31	12.75	10.00	7.50	7.19	18.50	16.12
1954-55	.. 12.00	16.37	7.81	10.50	10.00	3.62	12.00	10.43
1955-56	.. 12.50	19.31	14.56	14.06	8.00	8.00	20.12	11.69
1956-57	.. 12.44	18.83	15.50	19.90	14.25	6.60	..	..
1957-58	.. 16.25	21.00	13.80	17.10	14.50	10.00	28.00	..
1958-59	.. 15.54	23.91	15.07	16.90	14.00	8.25	25.18	..
1959-60	.. 17.19	21.44	15.25	18.75	14.00	13.00	28.60	19.06
1960-61	.. 15.09	20.05	15.00	19.05	13.08	13.08	26.53	..
1961-62	.. 15.32	21.18	16.15	18.93	12.86	..	..	18.03

Source :

Basic Agricultural Statistics of Gujarat State for the period 1949-50 to 1961-62, p.88.

STATEMENT IX-4

Annual Average of Wholesale Prices of Foodgrains

(PRICES IN RS. AND PAISE)

Year 1	Unit 2	Commodities							Grou- ndnut oil 9
		Rice (medium) 3	Wheat 4	Jowar 5	Bajri 6	Gram-dal 7	Tur-dal 8		
1962	.. B.M.	73.29	63.17	45.61	48.96	59.27	..	30.55	
1963	.. Quintal	69.05	57.46	43.93	45.13	61.58	..	30.54	
1964		77.45	74.89	52.44	57.34	86.92	..	209.02	
1965		N. A.	87.06	74.79	72.79	136.58	..	242.14	
1966		169.58	81.62	73.75	75.75	150.58	..	50.40	
1967		227.55	109.33	97.12	99.79	199.41	165.00	427.68	
1968		201.42	100.58	82.54	84.75	165.79	161.08	302.42	
1969		194.54	106.58	87.42	90.08	134.29	173.83	433.30	
1970		175.71	101.79	96.62	81.71	148.50	176.21	495.92	
1971		157.37	94.69	105.04	67.21	124.58	187.79	435.39	
1972		191.67	97.12	106.75	89.00	136.66	197.37	447.66	

N. B. : Prices of groundnut oil from 1962 to 1966 are per 16 kg. and there after per quintal.

Source :
The Statistical Officer, Vadodara.

WAGES

The Vadodara district as constituted at present came into existence in 1949 wherein princely areas of Vadodara and Chhota Udepur States and estates of Sankheda Mewas, Gadhboriad, etc., were merged. Therefore, data about wage rates prevailing in these areas are not available consistently over a period of time to facilitate a comparative study of wage trends. As a result, the scope of discussion on the subject is limited to the extent statistical and other material is made available from previous records.

Wages generally signify all remuneration capable of being expressed in terms of money paid to a person for the work done by him. The level of wages obtaining at a particular period gives an indication about the prevailing economic conditions. Price fluctuations greatly influence the wage level.

The following extracts from the former *Imperial Gazetteer* (1908) and the *Baroda State Gazetteer* (1923) throw considerable light on the wage structure in the former State.

"Among skilled labourers, the carpenter earned the highest wages. At Baroda, his daily pay varied from 10 annas to a rupee or more, while elsewhere he received from 8 to 12 annas. A blacksmith got from 10 to 13 annas a day at Baroda and 6 to 9 annas in other parts of the State. A mason could earn daily at Baroda from 10 to 14 annas, or from 8 to 12 annas outside the city. The rates for other classes of skilled labour varied from 4 to 6 annas. It will be seen that the wages of agricultural labour were fairly uniform throughout the State, varying from 3 to 4 annas a day. Labourers who worked as porters earned similar amounts, but at Baroda and other important places, which had railway stations, their earnings often exceeded 8 annas. The wages of other labourers varied from 2 to 3 annas a day.

The payment of wages in kind prevailed especially in villages. Agricultural labourers, who were hired on contractual basis, were provided by their masters with food, clothing, etc., and a small annual cash payment. Casual labour, at the time of weeding and harvest was, in some places, remunerated by cooked food once a day in addition to a small cash payment, which generally depended on the demand and supply in the labour market. Again, at marriages or on other occasions villagers often secured the services of artisans and labourers in return for their food and a small money allowance.

A day labourer who, before 1923 received 2 to 4 annas a day, received 8 to 12 annas per day and in the harvesting season as much as one rupee per day owing to the demand for labour in the factories and to the general rise in prices of essential commodities."

Due to the great depression in 1929, the prices of agricultural commodities had slumped down precipitately causing wide-spread economic disturbances. This had an adverse effect on the wages paid to different kinds of labour. Such worse effects began to ease after 1934 or so. Wages began to show an upward trend. Considerable improvement, however, came after the outbreak of War in 1939. Labour began to migrate to cities in the hope of getting better jobs in newly started factories for production of war materials. This labour had, therefore, to be compensated by offering him higher wages. This tendency has not only not abated in the post-war period, but has also resulted in higher wages than before.

Chhota Udepur State

In the Chhota Udepur State also the called Mohan, the people were mainly employed in agricultural pursuits, in wood cutting and carting operations and in collecting minor products of the forests, which they were permitted to collect free of charge. The ordinary daily wages for a man in 1941-42 was 5 annas and for a woman 4 annas. It was difficult to procure skilled labour locally. Most of the skilled artisans came from outside the State. Their wages varied from Re. 1 to Rs. 2 per day.¹

1. *Chhota Udepur State, Annual Administration Report, 1941-42*, p. 12.

After Independence

After the merger of the Vadodara State and other Estates into the Indian Union, the influence of wage trends prevailing in the country gradually began to be felt in the district. As a result, the remuneration paid to different categories of workers came to be governed by such factors as inflationary conditions, general law of supply and demand, nature of work, the skill and aptitude required, etc.

The average daily wages for different categories of agricultural labourers in the Vadodara district during the period 1950-51 to 1970-71 are given in the sub-joined Statement IX-5

The statistics reveal that the fluctuations in the wages during the period 1950-51 to 1961-62 for all type of labourers were comparatively less marked. The statistics for the year 1965-66 and 1970-71 reveal that the rates of wages went high due to the migration of labourers to the nearby city areas and rise in prices of essential commodities including foodgrains.

STATEMENT IX-5
Wages, 1950-51 to 1970-71

(WAGES IN RS. NP.)						
Sl. No.	Type of labour	1950-51	1955-56	1961-62	1965-66	1970-71
1	2	3	4	5	6	7
1	Skilled Labour					
	(i) Carpenter ..	3.88	4.00	3.85	5.09	7.77
	(ii) Blacksmith ..	3.73	3.63	3.63	4.55	7.15
	(iii) Mochi ..	3.33	3.41	3.30	4.42	6.60
2	Field Labour ..	1.66	1.37	1.15	1.65	2.31
3	Other Agricultural Labour ..	1.06	1.17	1.23	1.74	2.27
4	Herdsmen ..	1.01	0.97	0.95	1.70	1.64

Source :

Government of Gujarat, Directorate of Agriculture.

(i) *Basic Agricultural Statistics of Gujarat State* for the period 1949-50 to 1961-62.

(ii) *Season and Crop Reports, Gujarat State* for the year 1965-66 and 1970-71.

STANDARD OF LIVING

The standard or the level of living of the people is dependent on the total income earned by individual families and is determined by the pattern of their expenditure on various necessities and amenities of every day

life. The survey of family budgets of different income groups, therefore, proves useful in understanding the standard of living of the people in general. For this purpose, a family budget survey of about 200 families in different strata of society both in the rural and the urban areas of the district was undertaken by this office in 1973-74. The account that follows is based on the results obtained from this survey.

The Vadodara district is largely rural in character. The pattern of living in the rural areas of the district is essentially agricultural. At the same time the district is industrially prosperous due to various large and small scale industries located in and around the city of Vadodara. The petro-chemical complex and the fertilizer factory have brought this district on the industrial forefront. Besides, it has a fairly well established net-work of educational, medical and other social welfare institutions, a legacy which the district has received from the former Baroda State.

Urban

According to the 1971 Census, the total population of the district was 1,980,065. Of this, about 69.54 per cent was rural and 30.46 per cent was urban. Thus the percentage of urban population in this district is much higher than in most other districts of Gujarat. It is also higher compared to 28 per cent average in the State. The district has 13 towns of which Vadodara having a population of 4,67,489 is of course, the biggest. In fact Vadodara is the third biggest city in the whole of Gujarat. No other town in the district has a population of more than 40,000. Dabhoi has a population of 37,892 followed by Padra (24,229). All other towns have population of less than 15,000 each.

For the purpose of survey, the city of Vadodara was selected for the urban sector. About 100 families from this centre were surveyed. Families were divided into three income groups : (1) those with an annual income below Rs. 3,000, (2) those having an annual income of more than Rs. 3,000 but less than Rs. 6,000 and (3) those earning above Rs. 6,000 per annum.

Group I (Annual Income less than Rs. 3,000)—This income group consisted mainly of unskilled and semi-skilled labourers, shop assistants, lower clerical staff, petty artisans, etc. The families in this group earned less than Rs. 3,000 per year or Rs. 250 per month. More than half of the families surveyed were under debt as their expenditure far exceeded their income. Their average debt amounted to Rs. 3,000 per family. The average annual income per family was Rs. 1,930 while the average expenditure was Rs. 2,440 showing an annual deficit of Rs. 510 per family. To meet this deficit, several families in this group had to sell their ornaments. As regards their expenditure pattern, food alone accounted for more than 68 per cent of the

total. They ate coarse and inferior qualities of food. Clothing accounted for nearly 5 per cent. More than 70 per cent was thus spent on food and clothing leaving little for other comforts of life. Most of the families lived in rented premises and paid rents varying from Rs. 25 to Rs. 75. Tea and *beedi* or cigarettes accounted for nearly 5 per cent of their expenditure. Nearly seven per cent was spent on fuel and lighting, two per cent on medicine and one per cent on religious and other ceremonies. The remainder was spent on miscellaneous items of expenditure. Education accounted for a negligible percentage. The percentage of literacy was 70 in respect of males and 25 for females. Their household equipment was meagre and simple. Twenty per cent of the families owned bicycles.

Group II (Annual income between Rs. 3,000 and Rs. 6,000)—This income group comprised the lower middle class families consisting of small traders, petty shop-keepers, school teachers, Government servants, etc. The average annual income of a family amounted to Rs. 4,600, while the average expenditure was Rs. 5,000 thus leaving a deficit of Rs. 400 per year. None of the families surveyed had a surplus budget. About 60 per cent of them were in debt, while the rest managed some how to balance their budgets. The debt was usually incurred to meet special expenditure for marriage and other social occasions or a major illness.

As regards their expenditure pattern, about 56 per cent of the total was spent on food. Clothing accounted for seven per cent and housing for four per cent. Tea and *beedi* accounted for three per cent. Fuel and lighting accounted for about six per cent, medicine five per cent and education a little less than that. Religious and social occasions accounted for about two per cent. The rest was spent on miscellaneous items of expenditure. Most of the families lived in the rented houses, their rents varying between Rs. 50 and 150. Their household equipment included a simple set of furniture such as a chair and a table, a few metal utensils, etc. A few of them owned a radio. About 55 per cent of the families owned cycles. The percentage of literacy was 88 in respect of males and 60 in respect of females.

It could be seen that the spiralling prices in consumer articles during the last few years have told very heavily on the fixed income groups comprising the middle classes. Many of them have cut to the minimum their requirements of milk, *ghee*, fruits and even vegetables.

Group III (Annual income above Rs. 6,000)—This group represented the upper stratum of the urban society in this district comprising Government servants of higher grade, medical practitioners, lawyers, proprietors of industrial establishments, etc. Their annual income varied between Rs. 6,000 and Rs. 25,000 per year. These families had regular savings which they either deposited with banks or invested in business. All families in this group reported surplus budgets.

The expenditure pattern revealed many variations as compared to the previous two groups. They spent about 45 per cent on food, 10 per cent on clothing, seven per cent on education and nearly three per cent on entertainment. Most of them lived in their own houses. Those who lived in rented premises paid rent which formed, on an average, about 15 per cent of their total expenditure. Thus, while the percentage of expenditure on food was the least in this group, that on education, clothing, housing and entertainment was the highest. They owned radio sets, costly items of furniture and precious ornaments. Their standard of living was satisfactory. The percentage of literacy was 85 in respect of males and about 75 in respect of females.

It was observed during the survey that in the urban areas the average expenditure per family varied from Rs. 203 per month for the lowest group to Rs. 900 for the highest income group. The average income per family varied from Rs. 160 for the lowest group to Rs. 1,200 for the highest one. Thus while the highest average income is nearly eight times the lowest, the average highest expenditure is less than five times the lowest.

Rural

Twelve villages, one from each taluka of the district, were selected for the survey in the rural areas. The families were classified into two broad categories : (1) agriculturists and (2) non-agriculturists. The former were again divided into three categories according to size of their holdings. Those having less than 5 acres of land were grouped as small cultivators; those with more than 5 acres but less than 25 acres were termed as medium cultivators; and those with more than 25 acres were considered as large cultivators.

It is difficult to assess the standard of living of people in rural areas, especially agriculturists. The agriculturists, as a rule, consume food grains produced by them. In respect of other items too, such as milk, vegetables, firewood, etc., they usually do not go to the market to purchase them. Moreover, many of the small cultivators supplement their income by following allied occupations or by working as labourers. As a result, it is difficult to estimate their expenditure on such items. The results of the survey discussed in the following paragraphs should, therefore, be evaluated against these limitations.

Before studying the standard of living of the agriculturists, it would be helpful to study the size of their agricultural holdings. The size of land holdings and the number of landholders provide useful data for the

study of the agrarian structure in the district. The following statement gives data about the number of landholders and the size of land held by them in the year 1972.

Land Holdings, 1972

Size of holdings 1	No. of holders 2	Percentage to total holders 3	Area held (acres) 4	Percentage to total area held 5
0 to 5 acres	104,039	53.87	264,182	19.12
6 to 25 acres	83,350	43.16	897,567	64.97
More than 25 acres ..	5,733	2.97	219,857	15.91
Total	193,131	100.00	1,381,606	100.00

Source :

Collector, Vadodara District, Vadodara.

The statement shows that nearly 54 per cent of the cultivators in the district are small cultivators who hold between them only 19 per cent of the total land holdings. As against this, nearly 3 per cent constitute large holders who hold between them nearly 16 per cent of the total holdings. About 43 per cent are medium cultivators. Nearly 65 per cent of the total holdings are held by them.

Small Cultivators—The small cultivators constitute about 54 per cent of the total agriculturists in the district and hold between them only 19 per cent of the total land. 55 families from this group were surveyed. It was found that these cultivators face a considerable amount of under-employment coupled with periods of enforced idleness because of their uneconomic holdings. Many of them worked as agricultural labourers to supplement their income. As such, it was difficult to find out the total income accrued to them. However, according to a rough estimate their annual income on an average was Rs. 3,100. This was mostly derived from mixed farming and agricultural labour. In most of the families almost all adult members were found doing manual labour during some part of the year or whenever they could find such employment. For reasons already mentioned, it was difficult to get a clear picture about their expenditure pattern. However, it could be estimated that about 66 per cent of their total expenditure was spent on food. Clothing accounted for nearly 10 per cent. About five per cent was spent on tea, *beedi*, and tobacco. Expenditure on education formed barely one per cent of the total. Miscellaneous expenditure including that on social and religious

occasions accounted for five to seven per cent. More than 75 per cent of them lived in their own houses which were small in size and poor in ventilation. Many of them owned a pair of bullocks and a cow. Very few families possessed a bullock cart. Their household articles were few and simple. None of them possessed gold ornaments, though many owned silver ornaments. The percentage of literacy was 55 among males and about 30 among females.

Medium Cultivators—Those land holders who possess between 6 and 25 acres, were termed as medium cultivators. They constitute about 43 per cent of the total cultivators and hold between them nearly 65 per cent of the total land holdings. 55 families were surveyed from this group. The main source of their income was mixed farming which comprised cultivation of food and non-food crops and keeping milch cattle. The average annual income of a family was estimated at Rs. 8,800. 60 per cent of the families showed a clear surplus budget; on the other hand, 30 per cent of them showed deficit budget with a large backlog of past debts. It was found that more than half of the debt was incurred for agricultural improvement, and the remainder for meeting some social obligation like marriage. Their expenditure pattern showed that nearly 50 per cent was spent on food. Clothing accounted for nearly 11 per cent. Expenditure on tea, tobacco, *beedi*, etc., formed about five per cent. Miscellaneous expenditure incurred on social occasions, medical treatment, pilgrimage, etc., accounted for 15 per cent. Most of them lived in their own pucca-built houses. Their household assets included a pair or two of bullocks and one or two cows or buffaloes. They used their own bullock carts and other agricultural implements. Many of them possessed transistor radio sets, wrist watches, bicycles, etc. Quite a few of them invested their savings in gold and silver. About 50 per cent of the males and 35 per cent of the females were reported as literates.

Large Cultivators—The top stratum of the village community consists of big landholders holding more than 25 acres of land. However, only three per cent of the total cultivators of this district come under this group. This group was on the whole quite well off economically and lived a fairly comfortable life. All of them employed hired labourers to supplement family labour. On an average, the annual income of a family came to Rs. 26,000. The principal source of their income was agriculture in which cash crops, especially cotton and tobacco, dominated. All the 55 families surveyed reported surplus budgets though several of them said they could not save regularly. Their savings were mostly re-invested in agriculture, or in profitable investment or in gold and silver. On expenditure side, their actual expenditure on food articles could not be calculated in terms of money as most of their requirements of food, milk, vegetables, etc., were met from their own produce. It was broadly estimated

that about 45 per cent was spent on food. Clothing accounted for 12 per cent while tea and tobacco for nearly five per cent. They spent lavishly on marriage and other social occasions when much of their savings was utilized. Besides cattle and agricultural implements, quite a few of them had oil engines for irrigation purposes and tractors, jeep cars, etc. About 80 per cent of them had radio sets, bicycles, wrist watches, etc. The level of literacy in this group was higher as compared to the previous two groups. It was about 70 per cent among males and 55 per cent among females.

Non-Agriculturists

In addition to the agricultural classes discussed above, there are other classes among rural population which include village artisans, traders, salaried people, etc. The village artisans include the blacksmith, the carpenter, the cobbler, the potter, the barber, etc., who cater to the needs of the local population. Their earnings depend upon the size of the village and the economic condition of the people. These artisans are mostly paid in kind. The traders play an important role in the rural economy. They supply provisions, and at times also extend loans thus playing a role of trader and money-lender. In certain cases they act as buyers too as they purchase the agricultural produce of the cultivators. They live a fairly comfortable life.

As to the salaried people, they mainly consist of school teachers and officials in railways, post and telegraph, etc. Most of them had balanced budgets. Forty five per cent of the families were reported in debt. This debt was mostly incurred for meeting a special situation like marriage in the family, major illness, higher education for children, etc. They spent nearly 60 per cent on food, 11 per cent on clothing, five per cent on religious and social ceremonies, three per cent on medicine and almost an equal proportion on education. Their economic condition was found far from satisfactory as their earnings fell much short of their expenditure. As regards literacy, 60 per cent of the males and 45 per cent of the females were found literate among this class of people.

General Level of Employment

The 1961 Census, made an actual assessment of total working force and its distribution into main sectors of the economy for the first time.

The following statement shows the percentage of working force engaged in the primary, secondary and tertiary sectors. The figures of 1951 Census are helpful in assessing the inter-sectoral increase/decrease in the working force.

STATEMENT IX-6

Percentage Distribution of working Force by Sector Between 1951 and 1961

PRIMARY SECTOR

Total		As cultivator		As agricultural labourers		In mining, quarrying, livestock, forestry, fishing, hunting, plantations, orchards and allied activities	
1951	1961	1951	1961	1951	1961	1951	1961
68.06	71.64	35.80	43.22	31.03	27.68	1.23	0.74

SECONDARY SECTOR

Total		At household industry and in manufacturing other than household industry		In construction	
1951	1961	1951	1961	1951	1961
8.38	10.34	7.72	9.63	0.66	0.71

TERTIARY SECTOR

Total		In trade and commerce		In transport, storage and communications		In other services	
1951	1961	1951	1961	1951	1961	1951	1961
23.56	18.02	5.72	4.75	1.53	2.21	16.31	11.06

Source :

Census of India, 1961 Vol. V, Gujarat, Part I-A (ii), *General Report on the Census, Economic Trends and Projections*, (1965), pp. 12-13.

According to the 1961 Census, out of the total working force in the district, 71.64 per cent was engaged in primary sector. Further the number of persons working as cultivators increased by 7.42 per cent over the figures returned by 1951 Census. This shows that dependence on agriculture has increased in the decade. Thus pressure on land has not lessened, because the district's economy has not reached the take off stage when population seeks diversion to other channels of employment.

There is a decline in the strength of agricultural labourers, because on account of implementation of land reforms measures, labourers got the occupancy rights over the lands they tilled. There is also a marginal decline in the workers in mining, quarrying, forestry, etc., because of the closure of Pani manganese mines. The reason is that the district has only 8.81 per cent of land under the forests and minerals are confined to the

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talukas of Chhota Udepur, Jabugam and Sankheda. These are yet to be commercially exploited and extent of industrial uses determined. However, mines at Amba Dungar for exploration of fluorspar has been started recently.

In the secondary sector, the total working force has increased by 1.96 per cent during 1951-61. This is reflected in the number of persons working in industry, both household and manufacturing and in construction, but in the tertiary sector there is a decline in the total working force which was confined to trade and commerce and other services.

The following Statement IX.7 shows variations in employment of the working population in different industrial categories during 1951-61.

STATEMENT IX-7

Variation in Working Population by Industrial Sectors Between 1951-1961

Sectors 1	District		Increase or decrease 1951-61 4	Percentage increase or decrease 1951-61 5	Gujarat State
	Working population				Percentage increase or decrease 1951-61 6
	1951	1961			
	2	3			
All Sectors ..	498,760	586,342	+ 87,582	+17.55	+28.91
Primary Sector ..	339,472	420,074	+ 80,602	+23.74	+33.13
As cultivator ..	178,582	253,395	+74,813	+41.89	+53.09
As Agricultural labo- rers	154,743	162,316	+7,573	+4.89	+2.17
In mining, quarrying, livestock, forestry, fishing, hunting, plan- tations, orchards and allied activities ..	6,147	4,363	-1,784	-29.02	-55.62
Secondary Sector ..	41,793	60,608	+18,815	+45.01	+63.07
At household industry and in manufacturing other than household industry	38,512	56,449	+17,937	+46.57	+61.87
In construction ..	3,281	4,159	+878	+26.76	+79.21
Tertiary Sector ..	117,495	105,660	-11,835	-10.07	-1.30
In trade and commerce	28,510	27,878	-632	-2.21	+0.40
In transport, storage and communications	7,614	12,938	+5,324	+69.92	+59.30
In other services ..	81,371	64,844	-16,527	-20.31	-8.59

Source : Census of India, 1961, Vol. V, Gujarat, Part-I-A (iii), *General Report on the Census, Economic Trends and Projections*, (1965), pp. 10-11.

The statement shows that the total working force in the district increased by 17.55 per cent during the inter-censal period 1951-61. The corresponding increase in the whole State was 28.91 per cent for all the three sectors.

In the primary sector the working force increased by 23.74 per cent between 1951-61 which indicates pressure of population on land. With land area even decreasing, more people had to be supported than before. Further agricultural labour force increased by only 4.89 per cent in the decade. This indicates the effect of the land reforms measures implemented by Government, under which occupancy rights were conferred on labourers.

The increase in the secondary sector was more marked. The total working force in this sector increased by 45.01 per cent in the decade 1951-61. Of these, a majority was found in industry-household and non-household. The workers in construction activities increased by 26.76 per cent, due to spur in building and construction activities in the planning period.

However, the workers in the remaining tertiary sector declined by 10.07 per cent. But the persons working in transport, storage and communications increased by 69.92 per cent in the decade.

It can thus be seen that the increase in working force in the secondary sector as compared to those in the primary and tertiary sectors helps to indicate a definite shift in population to industry, which is a welcome sign for the district's economy, as it tends to reduce pressure on land.

EMPLOYMENT EXCHANGE

The Government of India has opened the Employment Exchanges at important centres throughout the country from July 1945 to assist in the resettlement of ex-service personnel and other discharged workers. Now a days, the National Employment Service is available to all the persons who wish to register themselves for employment assistance and to all employers, who desire to make use of it.

The employment exchange office for the district was established in the year 1958. It caters to the needs of the public. The activities of the exchange are divided into three sections, viz., (i) Exchange side, (ii) the Employment Market Information Unit and (iii) the Vocational Guidance Section.

The Exchange Side

It gives employment assistance to the registrants according to their qualifications and aptitude, collects and disseminates regularly information about vacancies available in different fields, and submits periodical returns and reports to the Director of Manpower, Employment and Training, Ahmedabad

and the Director General of Employment and Training, New Delhi from time to time.

The Employment Market Information Unit

It collects information from the employers of public and private sectors in the prescribed forms and carries out employment surveys as directed by the State and Central Governments.

The Vocational Guidance Section

It gives vocational guidance and counselling to the student job seekers and their parents, etc., and helps them in the choice of their careers, collects the data regarding training facilities available in the district and arranges career talks in the schools, educational institutions, etc., and makes available the pamphlets, booklets, etc., to the applicants/institutions.

The following figures illuminate the working of the exchange.

Working of the Employment Exchange

Year		No. of candidates registered	No. placed in employment	No. on live register at the end of each period	No. of employers using exchange	No. of vacancies notified
1		2	3	4	5	6
1969	..	21,437	1,065	11,054	720	2,932
1970	..	18,665	1,115	11,680	635	2,964
1971	..	17,794	1,760	15,175	747	3,021
1972	..	20,275	1,377	18,586	734	3,255

Source : Sub-Regional Employment Officer, Vadodara.

The statement reveals that the number of candidates registered in 1972 has slightly decreased; but, those on the live register and those placed in employment have on the whole shown an increase. Further the number of persons placed in employment through the exchange medium was the highest in 1971. Similarly, number of vacancies notified have also increased indicating awareness among the employers in seeking right type of personnel through the exchange.

NATIONAL PLANNING

The National Planning Committee of the Indian National Congress created an atmosphere for planned development in the country on the achievement of Independence. The Constitution of India promulgated in 1950 provided for the establishment of a Welfare State based on equality of income and opportunity to all citizens in the country. Thereafter, the

Planning era commenced in 1951. It aimed at achieving a balanced growth of the economy and also assured an improvement in the standards of living of the people. The Plans opened up new avenues of gainful employment for the masses and helped ensure a richer and fuller life to the people by developing agriculture, irrigation, industry, transport, social services including education, medical and health services and labour welfare. As a matter of fact, during the First Five Year Plan period, Gujarat did not exist as a separate State. At that time, Saurashtra and Kachchh were separate entities, while the rest of the area comprising the mainland of Gujarat State formed part of the former Bombay State. On the formation of a bigger bilingual Bombay State in 1956, the areas comprising the present Gujarat State were included in it. The Bombay State was, however, bifurcated during the course of the Second Five Year Plan and Gujarat State came into existence from May, 1960 towards the lag end of the Plan. Despite various strains and stresses in the initial stages, the Second Plan of Gujarat was completed with considerable success. The Third Five Year Plan was the first co-ordinated effort for the development of all the areas of Gujarat. The implementation of the Third Plan also proved to be quite satisfactory. With sizeable improvement in the State's resources, the Fourth and Fifth Plans have been formulated for achieving further development in Gujarat.

Perspective Planning

During the President's rule in Gujarat during 1971-72 a Ten-Year Perspective Plan of Gujarat State (1974-84), which varitably coincided with the Fifth and Sixth Plans was prepared. Such a long-term perspective planning is indispensable for achieving significant success in the implementation of Plans. The basic objectives of the Perspective Plan are : (1) full employment of the available manpower and natural resources, (2) maximum production in agriculture and industry, (3) equitable distribution of wealth among different segments of the population, specially the weaker sections, (4) balanced development of all regions, and (5) self-reliance in agriculture and industry with maximum import substitution.

District Planning

The concept of Planning from bottom gained ground during the Third Five Year Plan. It was found that formulation of Plans exclusively at the State level did not give sufficient attention to the variety of conditions obtaining in the different regions of the State. The importance of district planning was thus recognised for ensuring the rational utilisation of resources, reduction of intra-regional imbalances as well as proper co-ordination and execution of development programmes.

With the establishment of Panchayati Raj from April 1963, a part of its authority is vested in the Panchayati Raj institutions like the district panchayat, taluka panchayat and the village or nagar panchayat.

To help the district panchayats in the matter of timely formulation of the plan proposals, an official committee was appointed to study the problems of planning machinery at the district level both in the district panchayat and in Government and to make suitable recommendations.

Government has also appointed a District Planning Board in each of the districts in the State with the District Panchayat President as Chairman. Besides the members of Parliament and the State Legislature from the district, the District Collector and the District Development Officer are its members. The duties and functions of the District Planning Board are : (1) to study the socio-economic situation of the district continuously, (2) to render advice in the formulation of Five Year Plans, (3) to formulate well-planned and realistic programmes and schemes for ensuring balanced development in different spheres, (4) to give advice to augment financial resources of all the three tiers of Panchayats, (5) to suggest model schemes so as to ensure better planning and implementation of the local schemes from Panchayat's own funds, and (6) to undertake a regular and effective review and evaluation of all the district level schemes and programmes.

Under the plans, the State and district plans are thus formulated keeping in view the concept of the Welfare State and implemented through the district administrative machinery which has been geared and greatly strengthened to meet the exigencies of development. For each scheme of development, a target is fixed and the estimates of expenditure are worked-out to achieve the desired social and economic goals.

As the details about the sectoral expenditure incurred in the district during the First Plan period are not available, it is difficult to give an idea about the progress achieved in different fields during that periods. However, it can safely be said that the First Plan was in the nature of preparing a base for receiving a heavy dose of development in the Second and the subsequent Five Year Plans. Such figures are, however, available from the Second Plan period onwards and are tabulated in the following Statement IX-8.

STATEMENT IX-8

Expenditure Under Plans upto 31-3-73

(EXPENDITURE IN THOUSANDS RS.)

Sl. No.	Name of the Head	1-4-1966 to 31-3-1973		
		II Plan Expenditure in Rs.	III Plan Expenditure in Rs.	Expenditure in Rs.
1	2	3	4	5
1	Agriculture and allied activities ..	4,052	7,925	18,728
2	Irrigation and power ..	851	6,640	..
3	Community Development and Rural Development ..	4,803	4,745	5,152

STATEMENT IX-8—contd.

No. Sl.	Name of the Head	II Plan Expenditure in Rs.	III Plan Expenditure in Rs.	I, II, 1966 to 31-3-1973 Expenditure in Rs.
1	2	3	4	5
4	Co-operation ..	4,609	3,291	883
5	Industries and allied activities ..	2,567	616	341
6	Transport and Communications ..	17,041	7,702	13,987
7	Social Services ..	9,538	16,106	32,958
	Total ..	43,461	47,655	72,049

Source :

District Development Officer, Vadodara.

On the basis of data supplied by the district level authorities, upto 31st March, 1973 a total of Rs. 162,565 thousands has been spent on different sectors of the district's economy. Of these as much as 36.04 per cent of expenditure was incurred on social services including education, medical and public health and labour welfare. Transport and communications services came next with 23.82 per cent of expenditure. Agriculture and allied activities including minor irrigation, fisheries, land development, forest, animal husbandry, soil conservation, etc., accounted for 18.88 per cent of expenditure.

In the Second Plan, the total expenditure amounted to Rs. 43,461 thousands. Of these, transport and communications accounted for 39.21 per cent followed by 21.95 per cent on social services, 11.05 per cent on community development and 10.60 per cent on co-operation respectively.

In the Third Plan, Rs. 47,055 thousands were spent, wherein social services accounted for 34.23 per cent followed by agriculture and allied activities, 16.84 per cent, transport and communications services, 16.37 per cent and irrigation and power also 14.11 per cent.

In the Annual Plans, and upto 31st March, 1973 a total of Rs. 72,049 thousands has been spent. In this period also 45.74 per cent of expenditure was incurred on social services followed by agriculture and allied activities 25.99 per cent and transport and communications 19.41 per cent.

It can be said that the Five Year Plans have been instrumental in creating an urge among the people for betterment of their socio-economic conditions. The development in important sectors like agriculture, industry,

transport and communications and social services like education, medical and public health and labour welfare is considerable. This has led to increase in the *per capita* incomes at various levels.

COMMUNITY DEVELOPMENT PROGRAMME

For the development of socio-economic life of teeming millions of India, a novel experiment, popularly known as the 'Community Development Programme' to be implemented by the rural folk themselves through mutual help with assistance from local leadership was inaugurated from 2nd October, 1952, coinciding with the birth anniversary of Mahatma Gandhiji. The programme aimed at securing a co-ordinated development of rural life as a whole. The programme covers *inter alia* development of agriculture, minor irrigation, rural health and sanitation, communications including village roads, education and small-scale industries, rural arts and crafts, etc.

In this district this programme was first inaugurated in the Jabugam taluka by opening a community development block on 26th January, 1954.

In the beginning, three types of development blocks known as the National Extension Service, Community Development and Post-Intensive Blocks were conceived, which marked three different phases of development of the rural areas. The National Extension Service was a preparatory period, when the area was groomed for receiving a heavy dose of development in the subsequent periods. It was felt that thereafter the development generated would be maintained.

But the Community Development Programme failed to evoke and enlist the participation of the people to the extent desired, because the local institutions as envisaged could not be developed *pari passu*. It was noticed that there was very little of enthusiasm from the public. The implementation of the programme presented a picture of imposition from outside instead of coming from within the masses. In 1957 the Planning Commission, therefore, appointed the Balwantray Mehta Committee to examine the working of the Community Development Programme and related matters and to recommend measures for improving its quality and content. In pursuance of its recommendations, the distinction between the National Extension Service stage, intensive development stage, and the post-intensive stage was abolished from 1st April, 1958 and all the blocks under all-India programme except blocks in the community development stage, which had then not completed three years, were classified into stage I and stage II blocks, with the revised financial pattern and the periods of operation. The community development blocks on completing stage I period would enter stage II. A stage I block has a five year period of operation with a ceiling of expenditure

of Rs. 12 lakhs. It is the intensive development phase in which the people's participation is to be promoted by a closer association of rural institutions. The degree of success attained during first stage would be evidenced by the growth and functioning of self-reliant rural communities, which was the basic objective of the programme. After completing stage I, the blocks would enter stage II and then the post-stage II of the programme.

On 31st March, 1973, there were 9 community development blocks in the district. Of these, five were stage II blocks at Karjan, Dabhoi, Sinor, Vadodara and Savli and four post-stage, Blocks at Vaghodia, Padra Sankheda and Pavi-Jetpur.

TRIBAL BLOCKS

In order to have all-round intensive development of socially and economically backward areas, special multi-purpose projects were launched during the Second Plan, all over India in selected places from April, 1957. These blocks were termed the Tribal Development Blocks. They are divided into two stages. During the first stage, a provision of Rs. 10 lakhs and in the second stage Rs. 5 lakhs are made. Over and above these allotments in the budget, grants under the community development head are also made available to talukas where tribal blocks are situated.

In this district, in addition to the above block there were five tribal development blocks at Naswadi, Tilakwada, Chhota Udepur, Zoz and Kawant, which were in stage II.

In the tribal blocks, expenditure is incurred on such heads as project headquarters, agriculture and animal husbandary, co-operation and rural arts and crafts, social services and communications. The salient features of the tribal blocks are that the schemes are specially meant for scheduled Tribes only. A large part of the financial allocations are spent on agriculture, irrigation and small-scale industries.

Detailed particulars of starting of each block, expenditure incurred and people's contribution, etc., upto 31st March, 1973 inclusive of the tribal blocks, are given in the following statement.

STATEMENT

STATEMENT IX-9
Community Development Programme upto 31-3-1973

Sl. No.	Name of the Block/Taluka	Date of starting the Block	No. of villages covered	Population as per 1971 Census	Area covered km.	Total Expenditure incurred up to 31st March, 1973 Rs.	Total contribution by the people up to 31st March, 1973 Rs.
		3	4	5	6	7	8
A. COMMUNITY DEVELOPMENT STAGE II BLOCKS							
1	Karjan	.. 1st April, 1960	94	114,782	601.9	1,81,02,123	N. A.
2	Dabhoi	.. 1st May, 1960	118	145,166	632.6	13,95,461	N. A.
3	Siror	.. 2nd October, 1962	40	53,656	292.5	10,54,634	2,55,348
4	Vadodara	.. 1st October, 1961	111	197,819	670.9	26,50,280	4,09,800
5	Savli	.. 1st April, 1959	136	161,022	792.0	47,53,676	6,47,460
Total of Stage II Blocks ..						27,66,674	1,31,2,668
B. COMMUNITY DEVELOPMENT POST STAGE II BLOCKS							
Vachodia							
..	..	.. 20th October, 1959	94	89,203	504.5	15,80,223	4,33,409
Padra							
..	..	.. 1st April, 1957	82	171,308	534.6	2,00,22,858	6,19,254
Sankheda							
..	..	.. 2nd October, 1954	183	133,676	722.6	1,93,22,492	8,37,765
Jetpur							
..	..	.. 26th January, 1954	212	137,756	799.4	44,85,171	6,61,717
Total of Post-Stage II Blocks ..						4,54,10,654	25,52,145

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C. TRIBAL DEVELOPMENT STAGE II BLOCKS

1	Naswadi	.. 1st April, 1962	216	72,661	535.2	13,53,181	54,662
2	Tilakwada	.. 1st April, 1963	112	43,542	244.6	11,20,278	1,10,628
3	Chhotu Udepur	.. 1st April, 1965	58	57,161	298.9	9,51,140	N. A.
4	Kawant	.. 1st April, 1965	111	71,193	511.0	8,70,979	N. A.
5	Zoz	.. 1st April, 1964	110	60,573	570.1	8,98,363	N. A.
<i>Total of Stage II Blocks</i>							
						51,93,941	1,65,290
Grand Total							
						7,86,03,769	40,80,043

Source : The District Development Officer, Vadodara.

It will be seen that, the entire district has been covered by the community/tribal development programme. The total expenditure incurred on these blocks upto 31st March, 1973 was Rs. 78,603,769 and peoples' contribution was Rs. 4,030,043.

The details about physical achievements upto 31st March, 1973 for the schemes undertaken under the programme are given in Statement IX.10 appended to the chapter. It helps to illustrate the benefits accrued to the people as a result of the implementation of the community development programme.

TRENDS OF DEVELOPMENT

Prior to 1875 there was no large socio-economic development in the former Vadodara State. After Maharaja Sayajirao III assumed full regal powers, there has been a great metamorphosis in the socio-economic life of the people. With clear foresight and sound thinking, he initiated a number of measures for the upliftment of masses. The free and compulsory primary education helped in raising the literacy standards of the State's subjects. Co-operation, even before it was heard of in the rest of the country, was ushered in at Vadodara as early as 1889. The State also took measures for the development of commerce and industries by creating sound financial institutions. Further, a separate Department of Commerce and Industries was created. An Economic Board to advise Government on matters of economic development was started in the year 1937. The Bank of Baroda, the Alembic Chemicals Ltd., are the pioneering institutions in the field of development of commerce and industries. However, the diversification of the economy came in the wake of planning which was introduced after Independence for raising living standards of the people and socio-economic development of the country. During the last two decades of planning, the economic development generated in the district can be gauged from the following selected indicators as shown in the Statement IX.11.

STATEMENT IX.11

Selected Indicators of Economic Development in the District till 1972-73

Sl. No. 1	Category 2	Achievement			
		Year 3	Hectares 4	Year 5	Hectares 6
1	Area under cultivation	.. 1949-50	687,300	1969-70	540,800
2	Area under foodgrains	.. 1952-53	284,200	1972-73	175,800
3	Area under cash crops	.. 1952-53	189,600	1972-73	303,700
4	Area under irrigation	.. 1959-60	9,900	1969-70	90,500
5	Area under forests	.. 1949-50	34,200	1969-70	68,500

STATEMENT IX.11—contd.

Sl. No. 1	Category 2	Year 3	Achievements		Year 5	Hectares 6
			Year 3	Hectares 4		
				Tonnes		Tonnes
6	Out turn of foodgrains	.. 1952-53		106,600	1972-73	97,500
7	Outturn of cash crops	.. 1952-53		14,100	1972-73	33,100
8	Villages electrified	.. 1950-51		Numbers 4	1972-73	Number 433
9	Factories	.. 1960		187	1970	467
10	Credit Societies (No.)	.. 1950-51		359	1972-73	854
11	Banks (Commercial) (No.)	1947		9	1970	88
12	Roads	.. 1947		Km. 120	1973	Km. 2,405
				Numbers and Km. 131		Numbers and Km. 395
13	(a) State Transport routes	1760			1973	
	(b) Route Km.	.. 1960		3,086	1973	17,138
				Numbers 721	1972-73	Number 1,632
14	(a) Primary Schools	.. 1951-52				
	(b) Secondary Schools	.. 1950-51		74	1972-73	209
	(c) Colleges	.. 1949-50		11	1972-73	24
15	(a) Students in Primary Schools (No.)	.. 1951-52		94,958	1972-73	257,597
	(b) Students in Secondary Schools (No.)	.. 1950-51		12,137	1972-73	71,646
	(c) Students in Colleges (No.)	1949-50		2,962	1972-73	21,554

These indicators speak volumes about the development achieved in the course of planning in the district. However, after the formation of a separate State of Gujarat, the discovery of mineral oil set in motion wheels of development of the State as a whole. Hitherto cotton textile and chemicals, of minerals, oil, engineering, cotton ginning and pressing were the pivots of industrial development in the district. After the discovery of oil in abundant quantities ancillary industries have also been developed, which have been concentrated in and around Vadodara. Therefore, the district has made a great headway in regard to the industrial development in recent years. This has also in turn extended the employment opportunities for the people. A Caprolactum plant as a bye-product of the Fertiliser Company has been recently established from which nylon yarn would be manufactured. On

account of availability of neptha and other products from the Refinery, a Petro-Chemicals Complex is taking shape near Vadodara. As a part of this, udex plant, the aromatic project and the neptha cracker plant have been established. The production of the udex plant will be utilised by the fertiliser company in its caprolactum plant. As a result of establishment of Indian Petro-Chemicals Complex, down stream industries will also be established, for which letters of indent have been issued. This will help medium and small-scale industries greatly.

In addition to the large industries mentioned above, there has also been a sizeable expansion of the small-scale industries. The number of such units had risen to 923 at the end of March 1970 and comprises such units as food products, tobacco, cloth, wooden, paper, rubber, chemicals and its bye-products, ceramic and cement, ferrous and non-ferrous metals and machinery including electrical and transport and others. Industrial estates have also been established at Vadodara.

STATEMENT IX-10

Physical Achievements of Community Development Blocks up to 31st March, 1973 (Since Inauguration)

Sl. No 1	Name of Item 2	Unit 3	Achievement 4
1 Agriculture			
(a)	Distribution of improved seeds	Qtls.	254,022
(b)	Distribution of fertilisers	"	2,808,094
(c)	Distribution of improved implements	No.	45,467
(d)	Agriculture demonstrations	"	30,617
2 Animal Husbandry			
(a)	Improved breed of animals supplied	"	1,346
(b)	Improved breed of birds supplied	"	15,611
(c)	Animals artificially inseminated	"	2,659
(d)	Animals castrated	"	21,441
3 Minor Irrigation			
(a)	Kutcha wells constructed, repaired or renovated	No.	2,681
(b)	Pucca wells constructed, repaired or renovated		6,866
(c)	Tank constructed, repaired or renovated	"	22
(d)	Tubewells and pump sets installed	"	40
(e)	Others	"	N. A.
(f)	Net additional area likely to be irrigated	(Hectres)	70,385
4 Health and Rural Sanitation			
(a)	Primary health centres started	No.	17
(b)	Rural Latrines constructed	"	6,282
(c)	Drinking water wells constructed or renovated	"	937
(d)	Disinfections of drinking water wells	"	10,808
(e)	Hand pump installed	"	76
5 Social Education			
(a)	Literacy centres started	No.	892
(b)	Adults made literate	"	14,151
(c)	Reading rooms and Libraries started	"	847
(d)	Youth clubs started	"	511
(e)	Farmer's Unions started	"	370

STATEMENT IX-10—contd.

Sl. No. 1	Name of Item 2	Unit 3	Achievement 4
6	<i>Women's Programme</i>		
(a)	Mahila Samiti or Mandal started	No.	302
(b)	Membership	"	4,758
7	<i>Communications</i>		
(a)	Kutchi roads constructed or improved ..	(Km.)	1,480
(b)	Culverts constructed or repaired ..	No.	269
8	<i>Village Small Industries</i> ..		
(a)	Improved Ghanis introduced	"	8
9	<i>Co-operation</i>		
(a)	Co-operative Societies started	"	1,308
(b)	Membership	"	201,841
10	<i>General</i>		
(a)	Village Panchayats established	"	782
(b)	No. of villages covered	"	1,677
(c)	Vikas Mandals or Village Councils started ..	"	542

Source : District Development Officer, Vadodara

PART V—PUBLIC ADMINISTRATION

CHAPTER X

GENERAL ADMINISTRATION

INTRODUCTORY¹

Public administration, as understood today, was not evolved before Independence when the functions of Government were mostly limited to the management of land and preservation of law and order. Land Revenue and Police Administration were the only important departments in most of the princely States or estates under the conditions obtaining there prior to Independence. The machinery of administration, however, differed in different States and estates according to their size, powers of the rulers, financial resources of the State and the type or character of administration. Since the form of Government was essentially monarchical, the ruler was the repository of all powers, civil and criminal.

The present district consists of a part of the Vadodara District of ex-Vadodara State and the former Indian States and estates of Chhota-Udepur Sankheda-Mewas, Pandu-Mewas and Bhadarva. The Princely States and estates were of different ranks and gradation, such as, States, Taluka, Thana, etc., exercising powers and jurisdiction which varied very widely.

Among the various units included in this district, the Vadodara State was the first class State with an elaborate system of administration. The Chhota-Udepur State, a second class State, because of its small size had limited financial resources. The ruler held the title of Maharawal. His house followed the rule of primogeniture and held Sanad of adoption. The ruler had powers to try his own subjects for capital offences and had unlimited civil powers and in criminal matters powers to try all but foreign subjects for capital offences. It had only a force of Body-guards and Police. The chief received a salute of 9 guns. The State of Bhadarva, a fourth class State had its own separate police and jurisdiction. It exercised the powers of inflicting three years rigorous imprisonment and fine upto Rs. 5,000 in criminal cases and hearing civil suits upto the value of Rs. 10,000.

The Sankheda-Mewas estate consisted of a number of petty estates whose proprietors were no better than common cultivators. They were under 7 groups, viz., Chauhan Group, Rathod Group, Chavda Group, Gori Group, Daima Group, Solanki Group and Parmar Group.

¹ (a) *District Census Handbook*. 1961, Baroda, pp. 4-6

(b) CAMPBELL, J. M., *Gazetteer of the Bombay Presidency*, Vol. II, Rewa Kantha, Narukot, Cambay and Surat States, (1880), pp. 141-156.

The Pandu-Mewas estate formed five groups, the chief of which were (1) Rajputs, (2) Bariyas of mixed Koli and Rajput descent, (3) Kolis, (4) Patidars and (5) Mohammedans. Formerly, all these estates were under the supervision of Agency Thandars and were protected by Agency Police. The headquarter of Thandar of Sankheda-Mewas was Wadia (Sankheda taluka) and the headquarter of Pandu-Mewas was Pandu.

All these estates were merged with the former Bombay State in 1949 and were included in the Vadodara district.

The administration of the State or estates was carried on by the Diwan or Karbhari under the ruler's direction, who was the supreme and the final authority in the State. The various departmental heads were responsible to Diwan or Karbhari for their work.

Administrative Set-up During the Princely State

Before integration of the States in 1949 major portion of the present Vadodara district belonged to the former Vadodara State. It had a chequered administrative history. It followed the pattern of the district administration of the British India with the result that the administrative set-up and hierarchy of the State conformed to those of the British India. The variations in designations were made to suit local conditions and needs. The district was divided into two sub-divisions (Prants).

At the head of the district administration was the 'Suba' who corresponded to the existing Collector of the district. The head of a Vibhag (Prant) was 'Naib-Suba' (corresponding to the present Prant Officer, *i. e.*, Assistant or Deputy Collector). Vahivatdar was the head of the mahal and the Mahalkari was in charge of the peta-mahal. At the village level, Patel was the lowest functionary in the administration. In between Patel and Vahivatdar there was an intermediate functionary called Tajvijdar, who was the counter-part of the present day Circle Inspector. Since 1902, a Panchayat was formally constituted for each village with a population exceeding 1,000, smaller hamlets being grouped together. The Patel or Headman was President and the accountant and schoolmaster were members *ex-officio* of the Panchayat. These attempts were made to restore village autonomy.

The Suba was both Collector and District Magistrate and, therefore, he was looking after the law and order problems of the district as well as the matters relating to land revenue, income-tax and other revenues. The Naib-Suba like the present Prant Officer was an assistant to the Suba whose functions were to inspect the records and work of the mahals and peta-mahals. The Vahivatdar and Mahalkari, like the present day Mamlatdar and Mahalkari, were responsible for the collection of land revenue and taxes and maintenance of boundary marks. He was also a Second Class Magistrate

with jurisdiction in respect of certain offences. The Tajvijdar used to supervise the work of the village Patels and the Talatis in his *tappa* (circle). The Patel was the headman of the village in revenue and police matters. He was also an *ex-officio* Sarpanch of the village Panchayat. He was assisted by the Talati in the affairs of the Panchayat.

The administrative set-up so far as the police was concerned had also a striking resemblance with the present day police set-up. The Police Naib-Suba was the head of the district police like the District Superintendent of Police at present. Police Inspector was in charge of a Vibhag (sub-division). Fauzdar was in charge of a taluka and Naib-Fauzdar was in charge of a small Thana.

The District and the Session Judge was the head of district judiciary. He was helped by the Munsiffs at mahal (taluka) level. The Varistha Court (High Court) was at the State level, having jurisdiction over all judicial offices in the State.

The District Judge had jurisdiction to try original civil suits upto any amount, to hear small cause suits upto Rs. 500 and to hear appeals from the decrees and orders of Munsiffs. In criminal matters, he used to try cases committed to his court by the subordinate Magistrates.

For every taluka there was a Munsiff having civil jurisdiction upto Rs. 10,000 and power of a First Class Magistrate in criminal cases.

Administration After Independence

After the merger of the Vadodara State on 1st May 1949, the Vadodara Prant became a district of the Bombay State on 1st August 1949. As a result of merger of Vadodara and other States, the Government was faced with the task of placing the administrative machinery of the merged areas on a uniform level. Its evolution in the present form may be considered into three distinct phases. During the first phase, the entire structure of the administration was re-organised on the pattern of a district, which became a principal unit of administration with intermediate functionaries at taluka and village levels. During the second phase, attempts were made to reform and rationalise the administration in order to implement the ideals of a Welfare State by making the administrative machinery development-oriented by increasing association of the people in implementation of the development programmes. During the final phase, the administrative set-up was democratised to suit the changing needs of time by introduction of the Panchayati Raj. These phases are now examined in details.

With the district as the principal unit of administration, the Collector became the key functionary and the pivot of administration, instead of the principal district officer responsible for the collection of land revenue and maintenance of law and order. He had manifold functions to perform. In

the administration of land revenue, he was concerned not only with the maintenance of land records, collection of land revenue and administering the land revenue laws, but also with the implementation of land reforms which were introduced immediately after merger to do away with a medley of special land tenures, levies and perquisites which hampered agricultural production. As the judiciary was separated from the executive, his judicial powers were mainly magisterial and restricted to the maintenance of law and order in the district. On the development side, he co-ordinated the activities of various other departments such as Agriculture, Animal Husbandry, Co-operation and Social Welfare, etc., which were then created at the district and lower levels.

The second phase began with the increasing association of the public with the welfare activities undertaken by the State under the Community Development Programme in 1952. The Collector was also the Chairman of the District Development Board, which looked after development work in rural areas, particularly in the field of agriculture, irrigation, community development co-operation, Social Education, Panchayats, etc. A further step in the direction of popular association and Local self-Government was taken by the establishment of panchayats in villages or groups of villages with a view to associating the people in the village administration.

They were thus enabled to take active interest in works of public welfare and utility and to accelerate the pace of development activities for the amelioration of the conditions and prospects of the village people. The panchayats were also invested with powers to try petty criminal offences and certain civil disputes.

THE PANCHAYATI RAJ

The third phase in the evolution of the administrative structure was reached when the Gujarat Panchayats Act of 1961 was enforced with effect from 1st April 1963, with a view to decentralising the entire administrative machinery from the district to the village level. The main objective of the Panchayati Raj is to enable the people of each area to achieve intensive and continuous development of the entire population. It comprehends both the democratic institutions and the extension services through which the development programmes are executed. For this purpose, the integrity of the structure of technical and administrative services need to be fully ensured. This revolutionary change in the administrative set-up led to the bifurcation of functions and responsibilities of the Collector, who now retains certain powers in respect of land revenue administration, maintenance of law and order, elections, civil supply and other subjects not transferred to the Panchayati Raj institutions. All the development activities, which were formerly within his charge as well as some of the functions under the Land

Revenue Laws, have, as will be seen later in the Chapter on 'Local Self-Government', been transferred to the Panchayati Raj bodies constituted under the Gujarat Panchayats Act.

Under this set-up, there are three tiers, namely, the District Panchayat, Taluka Panchayat and Gram or Nagar Panchayat. The principal Executive officer of the District Panchayat is the District Development Officer, mainly drawn from the cadre Indian Administrative Service. The Taluka Development Officer is likewise the principal officer at the Taluka Panchayat level and the Secretary, Gram Panchayat, is at the village level.

ROLE OF THE COLLECTOR

Formerly, the Collector used to be the pivot of the district administration. He was recognised as the local agent of Government in the district for all purposes. He was the link between the people and the Government. Besides supervising the collection of land revenue, the duties of collection of excise and other special taxes and the stamp revenue also devolved on him (Collector) as the executive head of the district. Before the Gujarat Panchayat Act, 1961, came into force in April, 1963, he co-ordinated the work of different departments and ensured implementation of the development schemes in the district. But after the introduction of the Panchayati Raj, the collection of land revenue has been entrusted to the Village Panchayats. The Collector still remains responsible for implementation of the land reforms laws and the collection of fees, dues, etc., recoverable as arrears of land revenue under various Acts such as the Bombay Irrigation Act (1879), the Bombay Entertainment Duty Act (1923), the Bombay Electricity Duty Act (1958) and the Gujarat Education Cess Act (1962). There are also other Acts, which provide for recoveries of other Government dues as arrears of land revenue. Under the Bombay Prohibition Act (1949), the Collector is empowered to issue permits to the liquor and drug addicts and recover assessment fees from shops permitted to sell liquor and drugs. He is also the Chairman of the Prohibition Committee of the district. Over and above these major functions, the Collector is entrusted with the work of watching the proper implementation of the district level plan scheme retained with the State after introduction of the Panchayati Raj. Apart from the Civil functions, the Collector has to perform duties as the District Magistrate under section 17 (1) of the Bombay Police Act XXII of 1951.

The District Superintendent of Police and the police force of the district are under the control of the collector who as District Magistrate has extensive powers under the Criminal Procedure Code and for proper administration of jails and sub-jails to a certain extent. In his capacity as District Magistrate, he is concerned with the issue of licences and permits under the Indian Arms Act (1959), the Petroleum Act (1934), the Explosive

Act (1884) and the Poisons Act (1919). Under the Factories Act, 1948, the District Magistrate is an Inspector for his district, in which capacity he has powers of inspection and supervision of factories, magazines, etc.

Prior to 1962, the District Treasury was under the overall charge of the Collector to whom the District Treasury Officer was subordinate. He was responsible for all the cash, stamps, etc., received in the Treasury as also for the proper maintenance of accounts. The sub-treasury establishments at the taluka headquarters formed part of the revenue establishments in the district. But from the 1st April, 1962, the sub-treasury establishment was separated from the Revenue Administration and placed under the administrative control of the Director of Accounts and Treasuries working under the Finance Department. The Collector, however, continues to exercise general powers and functions as the head of the district administration. The Treasury is thus, under the direct control of the Finance Department, though the Collector exercises supervision over it as required under the Bombay Treasury Rules.

Among the quasi-judicial functions of the Collector, over and above the hearing of appeals from the Prant Officers under the Land Revenue Code and various other revenue laws the following may be mentioned : (1) revisional powers under section 23 of the Mamlatdars' Courts Act, which are delegated to an Assistant or Deputy Collector ; (2) functions which the Collectors perform in connection with the execution of Civil Court decrees ; (3) proceedings and awards under section 11 of the Land Acquisition Act, 1894 ; (4) cases under the Bombay Government Premises (Eviction) Act and (5) powers exercised as District Magistrate under the Preventive Detention Act, when it was in force.

Besides the land revenue, the land reforms and magisterial work, the Collector is incharge of various important duties connected with civil supplies, small savings, land acquisition, elections to the State Legislature and Parliament and members of the District Panchayat, Census, etc. As a District Registrar, he controls work of registration of documents within the district, supervises the work of Sub-Registrar at the taluka levels and ensures proper performance of their duties as per the Indian Registration Act (1908). Under the Famine Relief Code, 1951, the Collector is required to keep himself at all times informed about the agricultural conditions within the district, and to organise relief measures and create as far as possible a permanent Famine Relief Fund on a charitable basis for the relief of the needy persons. With a view to accelerating the tempo of development of industries in the district and achieving more effective co-ordination in providing infrastructure facilities to industries, Government has designated Collector as *ex-officio* Deputy Commissioner of Industries and delegated to him certain powers for allotment of factory sheds and open plots in the Government industrial estates, formulation of the district master plans and

co-ordination of activities of various heads of offices and departments. Even after the introduction of the Panchayati Raj, the Collector has to carry out the Jamabandhi audits of Taluka Panchayats and villages.

The Collector is authorised to purchase or take on lease only protected monuments and to accept gift or bequest for any protected monuments with the sanction of the Central Government.

By virtue of his office as the President of the District Soldiers, Sailors and Airmen's Board, he remains in contact with army authorities, ex-soldiers and problems of their rehabilitation and welfare.

Collector's Office

The two main branches in the Collector's office are (i) Revenue and (ii) Supply, each of which is under an Assistant/Deputy Collector. The Assistant/Deputy Collector in charge of revenue is also Resident Assistant/Deputy Collector. The Deputy Collector looking after the supply branch is designated as District Supply Officer.

For the purpose of smooth and efficient administration, this district is divided into three sub-division, viz., (a) Vadodara sub-division comprising Vadodara, Savli, Padra, Karjan ; (b) Dabhoi, Sub-division comprising Dabhoi, Vaghodia, Nasvadi, Tilakwada, Sinor and (c) Chhota Udepur sub-division comprising Chhota Udepur, Jabugam and Sankheda talukas. All these sub-divisions are headed by 3 Deputy Collectors having their headquarters at Vadodara, Dabhoi and Chhota Udepur. The talukas/mahals are placed under the Mamlatdars/Mahalkaris who work under Deputy Collector of the sub-division.

The Deputy Collector is also a Sub-Divisional Magistrate for his sub-division. After the separation of judiciary from the executive, he is not empowered to try criminal cases except certain proceeding under the Criminal Procedure Code. The Mamlatdar/Mahalkari is the head of the revenue administration at the taluka/mahal level. By virtue of his office, he is a Taluka Magistrate and also a Superintendent of the Taluka Sub-Jail and the Assistant Custodian of the evacuee (Administration of Property) Act, 1949.

Judiciary

Another important department at the district level is the Judicial Department headed by the District and Sessions Judge who exercises jurisdiction in matters, civil, criminal and appellate. One noteworthy feature of the judicial administration in the Baroda State region was the complete separation of the judiciary and the executive effected as early as 1904. The

powers of the High Court were exercised by the Varishtha Court with its Chief Justice and two prime judges appointed by the Maharaja Saheb. Although the Varishtha Court was the biggest tribunal in the State, the powers of revising its decisions were reserved to the Huzur, who was advised in this regard by the Privy Council or Huzur, Nyaya Sabha consisting of Legal Remembrancer, Huzur Kamdar and a Judge of the Varishtha Court. The members, after a regular hearing of the parties, reported their conclusions to His Highness for final order. Besides the Varishtha Court and the Huzur Nyaya Sabha, there were five Courts of the District Judge, each located at every district headquarters, Assistant and Subordinate Judges and other Executive Magistrates and village Munsiffs.¹

After the intergration of Baroda district into Bombay State, the Bombay Separation of Judicial and Executive Functions (Extension) Act, 1958 came into force from 1st September 1958. Accordingly it has divided the Magistracy into 'Judicial Magistrates' who are subordinate to the District and Sessions Judge and 'Executive Magistrates' who are subordinate to the District Magistrates. The Judicial set-up of the district is at present comprised of the District and Sessions Judge, one Civil Judge (Senior Division) and five Civil Judges (Junior Division).

STATE AND DISTRICT LEVEL OFFICERS

The general pattern of administration has been completely transformed after Independence. A number of new departments, which did not exist in the past, have been brought into being to fulfil the objectives of a Welfare State. Besides Revenue, Judiciary and Police, which were the principal departments in the State, the Department of Agriculture, Animal Husbandry, Co-operation, Rural Development, Panchayats, Public Works, Social Welfare and Education, are now functioning with enlarged powers and resources under the District Panchayat, having their functionaries at various levels of administration.

The following is the list of officers functioning at the State/district level.

State Level Officer

- 1 Chief Conservator of Forest.

Divisional Level Officers

- 1 Deputy Inspector General of Police,
- 2 Deputy Registrar of Co-operative Society,
- 3 Superintendent Agricultural Officer,

1. *The Baroda State Administration Report, 1913-14.*

- 4 Assistant Director of Information,
- 5 Deputy Director of Industries,
- 6 Superintending Engineer (Irrigation Circle),
- 7 Superintending Engineer, Narmada Division,
- 8 Superintending Engineer, Roads and Buildings,
- 9 Superintending Engineer, Vadodara Circle,
- 10 Deputy Director of Public Health,
- 11 Superintendent of Prohibition and Excise, and
- 12 Regional Malaria Officer.

District Level Officers

- 1 District Collector,
- 2 District Superintendent of Police (Rural),
- 3 District Superintendent of Police (City),
- 4 District and Sessions Judge,
- 5 Civil Surgeon, S. S. G. Hospital,
- 6 Executive Engineer, Public Works Department,
- 7 District Education Officer,
- 8 District Treasury Officer,
- 9 District Registrar Co-operative Society,
- 10 District Employment Officer,
- 11 Assistant Examiner Local Fund Accounts Officer,
- 12 Assistant Director of Information,
- 13 District Commandant, Home Guards,
- 14 District Industries Inspector,
- 15 Superintendent of Jails, Central Jail,
- 16 Sales Tax Officer,
- 17 District Labour Officer,
- 18 Manager, Government Press,
- 19 Regional Transport Officer, and
- 20 Fisheries Officer.

All these offices are located in the Vadodara city.

Officers Under District Panchayat

After the commencement of Gujarat Panchayats Act, 1961 in the district and with the transfer of many departmental schemes, a number of district level functionaries have been transferred to the District Panchayat. These officers are under the administrative control of their own heads of departments at the State level. In the Panchayati Raj, a District Development

Officer is appointed from the cadre of the Indian Administrative Service. The executive power of the District Panchayat for carrying out the provisions of the Act vests in him. Subject to the orders of the President of the District Panchayat, he exercises all the powers as the Chief Executive Officer in regard to the administration and execution of development programmes, the details of which will be found in Chapter XIV—Local self-Government.

The following is the list of officers functioning at the District Panchayat level.

Officers Under District Panchayat

- 1 District Development Officer,
- 2 District Agricultural Officer,
- 3 Administrative Officer,
- 4 District Health Officer,
- 5 District Animal Husbandry Officer,
- 6 District Social Welfare Officer,
- 7 District Statistical Officer,
- 8 Executive Engineer, Panchayats,
- 9 Deputy District Development Officer,
- 10 District Project Officer, and
- 11 Taluka Development Officer.

All these offices are located in the Vadodara city.

CENTRAL GOVERNMENT OFFICES

There are several offices of Central Government located at Vadodara.

- 1 Superintendent of Post Office,
- 2 Divisional Engineer Telephones,
- 3 Collector, Central Excise,
- 4 Commandant, E. M. E.,
- 5 Commandant, Air Force,
- 6 Commandant, Territorial Army,
- 7 Field Publicity Officer,
- 8 Assistant Regional Director, Small Savings,
- 9 Divisional Superintendent, Western Railway,
- 10 Divisional Commercial Superintendent, Western Railway,
- 11 Programme Executive, All India Radio, and
- 12 Assistant Commissioner, Income Tax Office.

CHAPTER XI

REVENUE ADMINISTRATION

REVENUE ADMINISTRATION DURING EARLY DAYS

Though land revenue is no longer an important source of revenue today, it had been sheet anchor of the Government in ancient times in Gujarat. An attempt is made to show the history of revenue administration of the district from ancient period onwards.

In the old days of the Rajput kingdom of Anhilvada, the lands of Gujarat including that of Vadodara were either held by the Chief on condition of rendering military service or were given or rented directly from the Crown to the cultivators. When the Muslims seized Gujarat they found that in every part of the country the hereditary Rajput estates constituted no small portion of the lands of each district. The conquerors, therefore, entertained a two fold object; that of reducing the consequence and military power of the Hindu nobles which was founded on landed estates held for services, and that of filling their own treasury. It was, accordingly, their policy to encourage the commutation of liability to military services, and this by a device entirely profitable to themselves. They released the Hindu nobles of all obligation to do military service and in return confiscated the larger portion of their lands, leaving them a poor remainder. The share for the chiefs was in old days one-third and was termed *vanta*, the remainder appropriated by the Government was termed *talpat*. The word *vanta* means a share, and *talpat* is perhaps derived from a word meaning remainder, that is, that which is left after the *vanta* has been apportioned. However, this early *vanta* was probably distinct from the late *chauth vanta*. When the Musalman power decayed and the hill chiefs grew bolder in their forays, the rulers of the country found it necessary to conciliate the robbers by allowing them a fourth of every assailable village, that was, *chauth vanta*.¹

Apart from the tenures, the revenue administration during Mughal period, i. e., 1573 to 1760 A. D., deserves mention. Emperor Akbar directed Todarmal to conduct a survey. Todarmal carried out his work efficiently.

1 It must be borne in mind that there were *vantas* older than the Musalman times. The ancient Hindu rulers cultivated lands and *haks* termed *vanta* and *garas* were granted for the maintenance of younger branches. They also very commonly parted with lands to Brahmins, Bhats and Charans.

Source : ELLIOT F. A. H., *Gazetteer of the Pen bay Presidency*, Vol. VII, *Paroda*, (1883), p. 340.

During the Mughal period the district had the following type of administrative set up for the collection of land revenue. The highest district official was called Amin. His status was akin to that of present Collector. Under Amin, there was an Amil like the present Mamlatdar. This Amil was referred to as Kumavisdar, Mukhi or Mukadam. Patwari and Mehta were the village officials. Amil looked after the entire collection of revenue. In the crown lands Desai played an important part in the revenue collection through Zamindars and Watandars. In the initial stage, Desai received $2\frac{1}{2}$ per cent of the revenue collected. Later on, the percentage was reduced to $1\frac{1}{4}$. Mazmudar was the Accountant of the Government and his duty was to keep the accounts of the Government money. Prior to the commencement of the Maratha rule or presumably during the latter period of Mughal period, Bhagbatai system was in existence. However, afterwards or even during the Mughal period revenue in cash was collected through Mukhi or Patel. It was as good as monopoly system of collection of revenue.

The land reforms system of the early Marathas consisted in entrusting the collection of the State revenue to particular agents. Villages were farmed out to the highest bidders who collected what they could from the village communities, and paying the stipulated sum to the State, pocketed the balance. The *ijardar*, farmer, was not a district officer but was the person to whom the Government had let out the rights to collect taxes.

The Kamavisdar united in his person the functions of a judge and a revenue officer. He was in charge of a taluka. Several talukas constituted a district. Each taluka had a Kamavisdar. The Kamavisdars were under the Desai and Mazmudar. In the last days of Maratha *raj* the Kamavisdars like the Desais and Mazmudars became careless of their duty. They often appointed agents to perform their functions and resided not in the taluka under their jurisdiction but elsewhere. The authority, however, of the Kamavisdar was limited. He was liable to be called upon to account for all his actions by the Government, and could never pass a death sentence. The ryots had the right to complain against his acts of oppression.

The Patel stood next to the Kamavisdar and to the village what the Kamavisdar was to the taluka. The office of the Patel was hereditary and he was often termed as *zamindar*.

The Patel and the Talati had to see that justice was done to their village in revenue matters: the Desais and Mazmudars performed the same duties for the district. It was the duty of these officers to superintend the improvement of the *paragana*, to make the *lavni abadi* or the preparation for sowing and to settle the *jamabandi* or other rates of assessment.

These local officers were called *watandars*¹ or possessors and were appointed for the security of Government and as a convenient means of communication with the inhabitants. They did not directly assist the farmer in the collection of the revenue. It was their business to aid him indirectly in persuading the people to work, to take up land, to pay their taxes, and to obey the laws. The Desai had more particularly to assist in the settlement of the revenue and to report on the state of the crops. The Mazmudar's duty was to keep the accounts, that is, to write out the *jamabandi* of the *mahal*. In other words in the Baroda State as elsewhere, the Maratha Government did not interfere with the old village system but simply superimposed machinery at district level by which money might be collected and a few general services to the public be rendered. The *Kalambandi* or circular order of 1827 enjoined that an annual statement of the sums paid to hereditary officers was to be sent in by the farmer, together with vouchers and receipts.

Izardars and Cultivators

The *kalumbandi* of 1827 shows that farmers were treated like cattle. By the *kalumbandi* of 1827 the cultivators were ordered to till *sarkari* land first in order that private interests might not militate against the public profit, and the extent of *sarkari* land cultivated was in all cases to be at least double that of all other kinds of land.² If within the village limits the *sarkari* land did not by so much exceed other land, the villagers were to proceed to the neighbouring village and cultivate *sarkari* land there, before attending to private interests. In old days the villages were often so badly treated by some *kamavisdars* that they were driven to desert their fields and take up work offered to them by some more liberal farmers. Though the *kamavisdar* was permitted to receive within his *mahal raiyats* from other parts of the country, he could only do so if they had previously paid up all arrears due by them to other *kamavisdars*; and he could only guarantee land to strangers during his tenure of office. His successor was not by bound to any terms he might have made.

Maharaja Khanderao's Reforms

Maharaja Khanderao aimed at destorying the *izara* or farming system. His action on the administration of the land was three fold; he made an onslaught on the holders of *inam* lands. He introduced a revenue survey, substituting a fixed money payment and a ten year's settlement for the old levies in kind; and he introduced a new system of management.

1. The word *Watandar* is derived from *Watan*, ones own native country or place of residence, and eventually came to mean any hereditary estate, office or privilege.

2. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, *Administration*, Bombay, (1923), p. 5.

Revenue Management

It was ruled that a *talati* should be employed for each village, a *mehta* for one or more villages according to their size, and a *thanader* for a group of ten or more villages. The *talatis* and *mehtas* were subordinate to the *thandar*, or whom there were often ten or eighteen in each *mahal*, and those again were placed under the *vahivatdars* (mamlatdar) of the district or *pargana*. In each district there was a treasury into which the collections were paid in the first instance. From it the amount was transferred to the general treasury at Vadorara, which was in charge of the *Sar Suba* or Revenue Commissioner of all the districts in the State. The complaints of cultivators against *talatis* were to come before the officials, commencing with *mehtas* up to the *Sar Suba* at Vadodara, and finally to the ruler himself. Before the sowing season, in districts where the survey rates were in force, it was settled which ground each villager was to cultivate, when the crops were ripe, the village *talati*, exacted taxes. Until this was done there could be no harvest.

Maharaja Khanderao in 1860 separated police from revenue work in large villages. In Maharaja Khanderao's time, *matdar* was chosen, who could read and write. If the village was small, he did both the revenue and police work, but, if the village was large, two such men were selected, one being subordinate to the other. These were styled *mukhi patels* and they were assisted in the collection of the revenue by all the other *matdars*. The selection of the *patel* was made by the *vahivatdar* under the sanction of the *sarfauzdar* to whom he forwarded a register of all the *matdars* detailing their ages, castes, and qualifications and also the amount they were to receive as *patel chakri*. The office was generally retained for one year in rotation.

Maharaja Malharrao's Izara System

In Maharaja Malharrao's time management of districts and revenue was granted to certain court favourites who then became *kamavisdars*. These people did not actually do anything themselves. They entrusted all business to clerks who were chosen, not for their ability but for their willingness to falsify accounts.

The consequence of this system was evident. Formerly it was just possible that an *izardar* who was notoriously bad might be punished; a powerful court favorite could not. An *izardar* was liable to meet with competition, a *kamavisdar* was not. The former had, at any rate, been bound to pay Government a fixed sum for his farm, the *kamavisdar* was simply supposed to collect what he could. He of course falsified his accounts, collected as much as he was able, and paid into Government as little as he decently could.

Sir T. Madhavrao's Reforms

After him and during the minority of Maharaja Sayajirao III, Raja Sir T. Madhavrao's administration came into existence. As soon as possible the fiscal pressure on each village was ascertained side by side with its fiscal capabilities, and when it appeared necessary to do so, such immediate relief as seemed consistent with the interests of the Government was granted.

Land Revenue

A few extracts from Sir T. Madhavrao's administration reports will serve to enforce what has been written on the changes that were introduced into the administration of the land with reference to demands and collections. In his first report he writes.¹ 'The process of summary reduction of the land assessment has been completed. As a general rule, the maximum rate of reduction was 25 per cent, and the whole reduction may be estimated to amount to twelve lakhs'. 'That this abatement in the demand of the State has afforded substantial relief to the *raiya*s may be inferred from evidence which not infrequently presents itself. In the first place, there is greater general contentment among the *raiya*s. Then, the revenues are more easily collected. Then, again, deserted or arable land is being gradually taken up. Lastly occupied land is acquiring value and is an object of greater desire and competition than before 'Our tax, even after the summary reduction, stands higher than that in the neighbouring British districts. Our *raiya*s, however, have probably the benefit of some compensation. Perhaps our lands are of superior quality. Our *raiya*s possibly raise more paying crops. Probably our *raiya*s have more of rent-free land intermixed with fully taxed land. Be the compensation what it may, our *raiya*s, it is reported, are not apparently worse off for the greater incidence of the land tax". These extracts afford ample illustration of pattern of land revenue existing at that time.

Besides the summary reduction of the land tax, the *raiya*s had been freed from the *gadi nazarana* and several undefined exactions of *izardars* or farmers, and also from those of unscrupulous *Sardars* and officers. An admirably simple system of accounts was introduced, to ensure their regular keeping the village accountants were strengthened. For the convenience of the *raiya*s the revenue instalments were re-adjusted. A fixed demand for a certain number of years was made on certain villages paying a lump sum, the previous variations in demands having occasioned vast annoyance.

The period between 1881 to 1947 A. D., is important from the view of analysis as several significant steps were taken in the sphere of land revenue administration. This was the period when the State of Baroda was ruled

1. Baroda Administration Report, 1875-76, paras 193, 195, and 199.

by Sayajirao and Pratapsinh Gaekwad. During the time of Sayajirao, scientific system of land revenue, and survey and settlement were introduced while in Pratapsinh Gaekwad's time there was permanent reduction in land revenue to the extent of over 20 per cent.

LAND REFORMS

In past the Baroda State had made some efforts towards introducing some measures of land reforms. A notable example of this is the enactment of the Ankadia Villages' Tenants' Act, 1934. After Independence, Government tried to tackle problems of land reforms in two ways, viz., (1) abolition of Intermediaries and (2) the tenancy reforms. For protecting tenants from malpractices and conferring upon them occupancy rights and making them the owners of the land they tilled, various Acts have been enacted by the Government immediately after Independence.

It may be pointed out that in district there were lands and villages held on Ankadia, Banhedhari, Watan and Jagiri tenures. These tenures were abolished by special legislations. The various inams obtaining in the merged areas of the district were also abolished by the Bombay Merged Territories Miscellaneous Alienations Abolition Act, 1955. The Bombay Tenancy and Agricultural Lands Act, 1948 was applied with a view to do away with the intermediaries between the agriculturists and the State. The activities under the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947 were started in the merged areas from 1954 and were spread over Sankheda, Padra, Vaghodia, Vadodara, Karjan and Dabhoi talukas.

Under new Gujarat Agricultural Lands Ceiling Act, 1960, the maximum limits to the land holding were also laid down. It would, therefore, be observed that the district has benefitted on account of land reforms. A resume of some of the special tenures for which special Acts have been enacted is given below.

1. The Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947.
2. The Bombay Tenancy and Agricultural Lands Act, 1948.
3. The Bombay Talukdari Tenure Abolition Act, 1949.
4. The Bombay Personal Inams Abolition Act, 1952.
5. The Bombay Merged Territories (Ankadia Tenure Abolition) Act, 1953.

1. Major portion of the section is based on the book entitled : " The Land Problem of Reorganised Bombay States " by Dr. G. D. Patel, Bombay, (1957).

CHAPTER XI—REVENUE ADMINISTRATION

6. The Bombay Merged Territories (Baroda Watans Abolition) Act, 1953.
7. The Bombay Merged Territories and Areas (Jagirs Abolition) Act, 1953.
8. The Bombay Merged Territories, Miscellaneous Alienations Abolition Act, 1955.
9. The Bombay Inferior Village Watans Abolition Act, 1958.
10. The Gujarat Agricultural Lands Ceiling Act, 1960.
11. The Gujarat Patel Watans Abolition Act, 1961.
12. The Gujarat Surviving Alienations Abolition Act, 1963.
13. The Gujarat Devasthan Inams Act, 1969.

The Bombay Prevention of Fragmentation and Consolidation of Holdings Act, 1947

Consolidation of Holdings—Consolidation of small and scattered holdings is accepted as a preliminary step to the formation of co-operative farming. The consolidation programme should, therefore, not be thought of isolation but in context of the entire land policy of the State. In Gujarat, comprehensive legislation has been enacted to prevent fragmentation. The Bombay Prevention of Fragmentation and Consolidation of Holdings Act was enacted in 1947 and was made applicable to this district subsequently. It provides for consolidation of the scattered parcels of lands into compact holdings. For the purpose of the implementation of the Act, standard areas have been fixed for all talukas and mahals in this district and any area below the standard area is deemed to be a fragment and noted as such in the land records.

The programme of consolidation of holdings was undertaken in the following talukas of the district.

- (i) Padra (24),¹ (ii) Vadodara (6), (iii) Dabhoi (36), (iv) Sankheda (134), (v) Karjan (20), and (vi) Vaghodia (11).

In all 231 villages have been selected for the implementation of programme of consolidation of holdings. Out of these the programme has been implemented in 84 villages.

The Bombay Talukdari Tenure Abolition Act, 1949

The Talukdari tenure was the most important tenure amongst the proprietary tenures of Gujarat and was prevalent *inter alia* in the district. The Talukdars of Gujarat were identical with the ruling families of Saurashtra

1. The figures in brackets indicate the total number of villages.

and other areas of Agencies. Their loss of political power was on account of the geographical accident of their estates being situated in the *rasti* (settled) portion of the Bombay State brought under the direct control of the British, whereas their kinsmen in the *mulkgiri* (unsettled) portion continued to be treated as tributaries. The Talukdars of the estates who were men of varying position ranging from jurisdictional chiefs to holders of a few parcels of lands in a coparcenary estates belonged to different castes, viz., Muslims, Kathis, Charans, Vaghelas, Chudasmas, Kolis, Thakardas, etc.

The fundamental characteristic of the Talukdari tenure was that the Talukdari estate was neither alienated nor unalienated. The Talukdars were not the grantees of the government, but enjoyed proprietary rights in their estates antedating the advent of the State rule including ownership of mines, minerals, trees and forests. The historical evidence is that the Talukdars were settled by the Mughals as actual proprietors of their estates with the simple liability of paying the tribute to Government. After the Muslim rule, the Maratha domination made no change in the tenurial status of the Talukdars. The British on accession continued to levy the amount of tribute as hitherto but the amount was increased by 50 per cent in 1821. The rights and responsibilities were settled by the Gujarat Talukdars' Act, 1888.

Under the Act of 1888, the Talukdari estates were held subject to the payment of *jama* to Government which was either *Udhad* (fixed in perpetuity) or fluctuating. The Talukdari estate in the district were subject to the *jama*, which was liable to revision. The *jama* was an aggregate of assessment of lands in the village but was limited to about 60 per cent on the cultivated land and 35 per cent of that on the waste lands. In special cases, however, the maximum of 70 per cent of the aggregate assessment was allowed, but the enhancement beyond 50 per cent of the existing *jama* was forbidden in any case.

In these estates, large areas of lands were alienated to cadets, widows of the family and relatives for maintenance, and to village servants, either as reward for past services or as remuneration for services to be performed. The holders of these lands paid no revenue either to the Talukdar or to Government generally. The service inam (*chakariat*) lands were resumable at will, but in the case of other alienations, the Talukdars had a reversionary right in the event of the failure of male heirs. These alienations fell into three categories :

- (1) the alienations made before 1818 ;
- (2) the alienations made between 1818 and 1888 i. e., after the introduction of the British rule and before the passing of Gujarat Talukdars Act, 1888 ; and
- (3) the post-Act alienations.

The alienations were called *Lal-liti* lands because they were recorded in red ink in the old faisal *patraks* and Settlement Registers prepared in the twenties.

The pre-British alienations were settled by Mr. Peile in 1864. Such alienations were recognised if found recorded in the *Khardas* (the land registers) of 1818-20 or at the time of survey in 1863. The 1818-1888 alienations were those which were not so recognised by prescription and upon which *jama* was not levied. When these lands reverted to the Talukdar, they became ordinary lands of the Talukdar liable to payment of full *jama*. The third category of the alienations were covered by section 31 of the Gujarat Talukdars' Act, 1888. Under the said section, a Talukdar could not encumber his estate beyond his lifetime without the permission of the Talukdari Settlement Officer (the Collector) and could not alienate the same without the sanction of Government.

The Talukdars had a reversionary right to the alienations if an alienee died or left the village, provided possession had not passed into the hands of others either by sale or mortgage. If such lands had passed into the hands of non-Talukdars for more than 12 years, they lost the Talukdari character by adverse possession. As regards certain lands alienated by them before 1888 and as regards other classes of such lands, they were required to pay as *jama* 50 per cent of the proceeds derived by them therefrom.

Amongst the alienations, the problem of *wanta* lands in the Talukdari estates was very important. The *wantas* were a trace of the Mughal Settlement. It was a sort of the Talukdari tenure within a talukdari estate and, therefore, Peile called the *wanta* holders as 'ex-Talukdars'. Those *wanta* lands were entered as *Lal-liti* lands in the Settlement Registers. The *wantas* were of two kinds, viz., (1) the Summary Settlement *wantas* treated as personal inams in tail male ; and (2) the talukdari *wantas* subject to *jama* and classed as 'land specially reduced'. The *wanta* holders had generally no documentary evidence to prove their title during the period prior to the enactment of Act VII of 1863 ; because such lands were not assigned but were the lands retained after surrendering $\frac{1}{4}$ th of the area of the village of the Muslim rulers. Some *wantas* were settled under the Summary Settlement Act VII of 1863 and subjected to payment of quit-rent under the terms of the Sanads issued to them. Other *wantas* which were not so settled continued to pay *Udhad jama*. The *wantas* held by the Talukdars differed in no way from the whole villages owned by that class.

The tenants in the Talukdari villages were invariably tenants-at-will ; but the evictions being rare, they continued cultivation of the same lands for generations. After the application of the Bombay Tenancy and Agricultural

Lands Act, 1948, such tenants became protected or periodical for 10 years. The permanent tenants, however, very few.

In order to remove these intermediaries from the Talukdari estates, the Bombay Talukdari Tenure Abolition Act, 1949, was enacted. It abolished the Talukdari tenure with all its incidents with effect from 15th August, 1950. The Talukdars holding the talukdari lands and cadets holding any talukdari lands hereditarily for the purpose of maintenance (*jiwai*) have been recognised occupants thereof liable to payment of full assessment. Since 1st March, 1955, the permanent tenants and inferior holder paying assessment to the Talukdars are made eligible to the rights of occupancy on payment of 3 or 6 times the assessment respectively, the multiples cover the occupancy price and the compensation for the right of reversion abolished.

It is true that with effect from 15th August, 1950 all lands in the Talukdari villages became liable to payment of full assessment. But there were two exceptions, viz., (1) the talukdari *wantas* which were paying *Udhad jama* and (2) the lands in respect of which the settlement guarantee had not expired.

Thus the Bombay Talukdari Tenure Abolition Act, 1940 made all the talukdari lands liable to payment of full assessment except certain categories of lands called the *udhad jama* and *jama-paying* lands covered by the settlement guarantee.

Before the abolition of the Talukdari tenure, there were 4 tenure holders in 20 villages of the district. Of these tenure holders, 2 were in Vaghodia taluka and 2 in Sankheda taluka. The tenure covered an area of 19,276 A. 3 G. Assessed at Rs. 22,189.04 and the tenure holders paid Rs. 3029.79 as Judi to Government. After abolition of the tenure, 1,755 persons were given occupancy rights for an area measuring 15,851 A-07 G. and assessed at Rs. 21,685.89. All the 1,749 tenants and 6 inferior holders got occupancy rights on payment of occupancy price. The amount of occupancy price due and paid was Rs. 1,09,352.97. The total properties measuring 3,415 A-06 G. assessed at Rs. 503.50 were vested in Government under the Act.

The Bombay Personal Inams Abolition Act, 1952

The personal inams were granted, made or recognised by the British Government in appreciation of services rendered by persons to Government in diverse circumstances of trying character. In the beginning of the 19th century, the Government wanted a loyal class who would support their rule and administration at all levels. Such a class was found in such grantees by the Government.

This class of the *inams* was most widespread all over Gujarat and consisted of entire villages, lands, *amals* (shares from village revenue) and cash allowances. Besides, there were certain "terminable inams" which had been adjudicated to be continuable not hereditarily but only for one life or a few lives. These inams were private enfranchised property of the holders subject to payment of Judi to Government. The rights to trees, forests, mines and minerals, where not specially reserved by Government, were conceded to the holders.

The personal inams consisted of the following categories :

- (1) grants consisting of exemption from payment of land revenue only ;
- (2) grants consisting of soil with or without exemption from payment of land revenue.
- (3) grants consisting of assessment of land revenue called *amals* ; and
- (4) cash allowances.

After the dawn of Independence, this class of vested interests became outdated and outlived its utility. Their inams were, therefore, abolished with effect from 1st August, 1953 under the Bombay Personal Inams Abolition Act, 1952. It abolished all the incidents of the inams and resumed cash allowance and *amals*. All lands, which were partially or wholly exempt from payment of assessment, were made liable to payment of full assessment. In the case of the smaller inams, the levy of full assessment was graduated.

If the inams consisted of grants of exemption from payment of assessment below Rs. 5,000 full assessment became leviable from 1st August, 1955 and if the exemption was upto or exceeded that limit, the liability to pay full land revenue commenced on 1st August, 1953.

The fundamental fact about the Act was that the holders of *inams* were not dispossessed of their lands but were subjected to payment of full assessment only. They were made occupants of their lands without charging any occupancy price. Besides, occupancy rights were recognised in respect of the lands held by interior holders paying assessment to the Inamdars.

Certain lands and properties of a public character and waste and uncultivated lands were vested in Government and were subsequently assigned for public purposes such as grazing, cattle-stand, play-grounds, etc.

As regards extinguishment of rights in lands, the pattern of compensation provisions was quite analogous so to that the Bombay Talukdari Tenure Abolition Act, 1949. For resumption of *amals* and cash allowances, a quantum of seven times the amount of the allowance was provided. For imposition of full assessment on the wholly or partially exempt lands, no compensation was payable under section 17(5). Thus, a large body of reactionary intermediaries was removed from the administration by this legislation.

Under this Act there were tenure holders in Savli and Vaghodia talukas of the district. Before the Act came into force, there were 8 tenure holders in 2 villages of the district. Of these 8 tenure holders, 3 were in Vaghodia taluka and 5 were in Savli taluka. The inams covered an area measuring 2,413 A-23 G. and assessed at Rs. 3,433-25 and the tenure holders paid Rs. 1,790.67 as judi to Government. After the Act came into force, 338 persons became occupants in respect of an area measuring 1,810 A-02 G. and assessed at Rs. 3,624.23. In all 7 inamdars got occupancy rights without payment of occupancy price in respect of an area 170 A-09 G. assessed at Rs. 363.51. Furthermore 331 inferior holders got occupancy rights without payment of occupancy price in respect of an area measuring 1,639 A-33 G. assessed at Rs. 3,260-72. The total properties measuring 544 A-02 G. assessed at Rs. 287-29 have been vested in Government under the Act. As regards compensation one claim was filed and decided. The total compensation awarded amounted to Rs. 4,046.59. The total compensation paid so far was Rs. 36-11 in cash and Rs. 300 in bonds. The total amount not paid yet as compensation is Rs. 3,710.48.

The Bombay Merged Territories (Ankadia Tenure Abolition) Act, 1953

The Ankadia system originated in the difficulties inherent in administering the far-flung and hilly regions of the borderland owing to uncertain political administrations of the 18th century in Gujarat. The then Government badly needed a person, who could control the village, collect revenue and pay a fixed sum called 'Ankada' to Government. In the Baroda villages the amount of the Ankada was either fixed for thirty years or ten years according to the villages was *ek-Ankadia* or *farta Ankadia*. The Vadodara villages were further classified into *thakarati* and *Matadari*, but the status accorded to the Ankadedars of all these villages under the Baroda Ankadia Villages Rules, 1932, was that of revenue farmers without any proprietary interest. In the revenue management of the villages, the Baroda rules imposed restrictions.

The Government of Bombay undertook a special legislation for abolishing the Ankadia tenure. For this purpose, the Bombay Merged Territories (Ankadia Tenure Abolition) Act, 1953 was enacted and brought

into force from 15th August, 1953. The law abolished the Ankadia tenure with all its incidents. All the leases or agreements relating to the Ankadia villages were cancelled. All the Ankadia villages were resumed and all the lands in those villages were made liable to the payment of land revenue under the provisions of the Bombay Land Revenue Code, 1879. The inams held by religious and charitable institutions and for services useful to Government were saved. Certain categories of landholders or cultivators were recognised as occupants in respect of lands held by them. The *Ankadedar* was recognised as an occupant in respect of his *Gharkhed* lands. A person whose name was entered in the record as an occupant (*Kabjedar*) of such land and was liable to pay to the *Ankadedars* land revenue was also recognised as an occupant. The *Ankadedars* in respect of the *Gharkhed* lands, and cultivators paying land revenue have been recognised as occupants. Except these persons, other cultivators continued as tenants under the provisions of the Bombay Tenancy and Agricultural Lands Acts, 1948. Thus, the Act has made the *Gharkhed* and *Jiwai* lands which were wholly exempt from payment of land revenue liable to full assessment under the Code.

For extinguishment or abridgement of any rights of the *Ankadedar*, compensation is provided at three items the average of the amount to have been realised annually by the *Ankadedars* as revenue during the three years immediately before the coming into force of the Act.

There was a distinguishable difference between the Baroda and non-Baroda Ankadia villages. In the former the main purpose of the *Ankadedars* was the revenue management of the village, whereas in the latter, the police duties predominated. Further the former villages were classified into *Ek Ankadia* and *Farta Ankadia* with sub-divisions into *Thakarati* and *Matadari*.

In regard to the Vadodara village, the *Ankadedars* and *Jiwaidars* are not dispossessed of the lands in their possession (*Gharkhed*), but are recognised as occupants thereof. Cultivators holding lands in respect of which land revenue or rent was payable to the *Ankadedar* as an incident of the tenure are also recognised as occupants.

The Bombay Merged Territories (Ankadia) Tenure Abolition Act, 1953 was applicable to the talukas of Vaghodia, Padra, Karjan and Vadodara. Before the Act came into force, there were 14 tenure holders in 9 villages of the district. Of the 14 tenure holders 5 were in Vaghodia taluka and rest were spread in the talukas of Vadodara (4), Padra (3), and Karjan (2). The villages covered an area measuring 15,002 A-31 G. and assessed at Rs. 46,782-59. The tenure holders paid Rs. 30,877-65 as Judi to Government. After abolition of the tenure, 1,620 persons became occupants

in respect of an area measuring 10,375 A.-01 G. and assessed at Rs. 37,451-58 without payment of occupancy price. The total properties vested in Government admeasured 4,627 A.-30 G. assessed at Rs. 1,386-46.

The Bombay Merged Territories (Baroda Watans Abolition) Act, 1953

Like the Paragana watans of Gujarat, the watans were granted by the former Baroda State to certain leading men of the villages who were the chief instruments for the collection of the village revenues. In the early period of the Gaikwad regime, the Vatandar Desai, Amins and Majmundars were the pivots of the village administration and were the indispensable instruments of revenue collection. The essence of the *watan* was service for the remuneration of which either land or cash was assigned. Thus, the origin of the *watans* was in the revenue management of the villages or groups of villages.

The question of the settlement of the *watans*, was concluded in 1898 with the framing of the 'Baroda Watan Rules.' They never recognised any proprietary interest of the *watandars* in the *watan* villages and lands. These Rules were revised from time to time and finally published in 1932. They definitely provided that the *watan* was a service *watan* and the land or cash emoluments constituted remuneration for services to Government.

Under the Rules, the *watans* were inalienable and could not be alienated even for the lifetime of the *watandars*. In the case of unauthorised alienations, the *watan* lands were made *khalsa*, entered as waste and put to auction. Although Rule 22 defined 'Service' in the widest and vaguest possible terms, the State treated the *watans* purely as service *watans* subject to service *kapat* (cut) on failure to perform service.

The Bombay Merged Territories (Baroda Watans Abolition) Act, 1953, gave a decent burial to those dwindling *watans* by total abolition with effect from the 15th August, 1953.

The Act resumed all the *watans* with their incidents. Although the *watandars* were not dispossessed of the lands, they were made eligible to re-grant of the resumed lands on payment of occupancy price equal to six multiples of assessment fixed on the land. The re-grant was on the new tenure only and for making the occupancy transferable or partible, such occupants will have to pay to Government a Nazarana equal to 20 times the assessment of the land. Thus, for re-grant of the resumed land on the old tenure, the amount aggregating to 26 times the assessment of the land was to be paid to Government.

This Act was applicable to 459 entire villages and scattered lands of the district. Before the Act came into force, there were 679 tenure-holders.

The *watans* covered an area of 4,204A.-23G, assessed at Rs. 16,779-04. The tenure-holders paid Rs. 9181-93 as Judi to Government. After abolition of these *watans*, 734 persons became occupants in respect of 4,204 A. 23 G. assessed at Rs. 16,340-77 on payment of occupancy price. In all cash allowances given to 10 persons, amounting Rs. 8,813-50 per annum were also discontinued under the Act. For compensation 44 applications were filed and also decided. The total amount of compensation awardable amounted to Rs. 40,700 and was paid in cash.

The Bombay Merged Territories and Areas (Jagirs Abolition) Act, 1953

There were Jagirs covering several categories in the Vadodara district. They could be broadly divided into two categories, viz., (1) those granted for maintenance to the members of the royal family, and (2) those granted in services to the State or valour in war. These two categories of Jagirs were found in all the former States and estates of Gujarat and the Deccan. The maintenance grants were called Jiwarak, Jiwai or Ayada and were held generally by the younger brothers of the Rulers and Cadets.

In short, the expression 'Jagirs' covered a medley of grants for maintenance, appreciation of services or remuneration for services created for reasons of political expediency or exigencies of administration.

All these Jagirs were abolished under the Bombay Merged Territories and Areas (Jagirs Abolition) Act, 1953, with effect from the 1st August, 1954. The Act applies to grants consisting of entire alienated villages and portions of villages and not to the scattered lands and cash allowances. It classifies the Jagirs into Proprietary and non-proprietary. Besides, it recognises another category of Jagirs called the lifetime *jiwai jagirs*. Such Jagirs could be either proprietary or non-proprietary.

Occupancy rights are recognised in respect of Gharkhed lands held by Jagirdars or Cadets and the lands held by permanent holders. Tenants in proprietary and non-proprietary villages are made eligible to the rights of occupancy on payment of the occupancy price equal to six multiples of assessment, to the Jagirdars and the State, respectively. As usual, the *devasthan* and *dharmada* inams held for the institutions and inams held for service useful to Government are saved.

The vesting of public properties and lands is on the analogy of other Abolition Acts. There is also the usual saving of the Jagirdars' rights to mines and minerals and forests.

As regards compensation provision, the pattern of the Bombay Taluqdari Tenure Abolition Act, 1949, is followed for the proprietary Jagirs and that of

the Ankadia Tenure Abolition Act, 1953, for the non-proprietary Jagirs. In the case of the lifetime *jiwai* Jagirs, however, the compensation is provided at ten times the average amount of land revenue recovered by or due to the Jagirdar.

As the Abolition of the personal inams created uproar amongst the Inamdars in the former Bombay State areas, the abolition of the Jagirs created much consternation and uproar amongst the Jagirdars in the merged territories and areas. Next to the personal *inams*, this measure has affected all sorts of holders of Jagirs in one respect or the other.

The total number of tenure holders in the district was 272 and prior to abolition of the tenure there were 490 proprietary and 44 non-proprietary villages. This Act was made applicable to Karian, Chhota Udepur, Padra, Sankheda, Vaghodia, Naswadi, Vadodara, Jetpur-Pavi, Savli, Dabhoi, Sinor talukas and Tilakwada (Mahal) of the district. Of the 272 tenure holders, the maximum number of 129 tenure holders was in Savli taluka and the rest were spread over in Chhota Udepur (36); Naswadi (30); Tilakwada (19); Vadodara (14); Padra (12); Jetpur-Pavi (7); Karjan (6); Sankheda (4); Dabhoi (3); Vaghodia (1); and Sinor (1). The jagirs covered an area measuring 3,40,142 A. 17 G. and assessed at Rs. 7,03,597.46 and the tenure holders paid Rs. 5,49,523.18 as Judi to Government. Apart from these Jagirs there were 15 life-time Jagirs admeasuring 29,883 A. 09 G. assessed at 1,32,960.92. After implementation of the Act, 33,672 persons became occupants in respect of an area measuring 2,93,346 A. 10 G. and assessed at Rs. 7,07,795.68. The persons, who got occupancy rights on payment of occupancy price numbered 4,144 in respect of an area admeasuring 17,038 A. 07 G. and assessed at Rs. 41,513.18. The total properties measuring 76,119 A. 18 G. and assessed at Rs. 5,196.85 were vested in Government. For compensation in all 758 claims were filed and 734 were decided. The total amount of compensation paid so far amounted to Rs. 46,20,414, and Rs. 7,796 have not been paid yet.

The Bombay Merged Territories Miscellaneous Alienations Abolition Act, 1955

After abolition of the Vadodara *watans* and non-ryotwari tenures such as Ankadia, and Jagirs from the merged territories and areas, several miscellaneous alienations consisting of scattered lands and cash allowances survived.¹ The alienations were mainly made for maintenance to the Maharaj Kumars and other members of the royal family and to other persons as reward of remuneration for services connected with the administration of the State.

1. The alienations consisting of entire villages or portions of villages in the merged territories were resumed under the Bombay Merged Territories and Areas (Jagirs Abolition) Act, 1953.

They were found in all the districts of Gujarat and Maharashtra wherein different States and estates had been merged.

In order to abolish all those alienations, the Bombay Miscellaneous Alienations Abolition Act, 1955, was enacted and enforced with effect from the 1st August, 1955.

It applies to the *merged territories* only with the result that the alienations existing in the *merged areas* are not affected by the provisions of the Act. The definition of the expression 'alienation' given in the Act covers a wide category of alienations such as entire villages, portions of villages consisting of grants of soil with or without exemption from payment of land revenue, cash allowances or allowance in kind of any type by the ruling authority before the merger or by the State Government after the merger including *wanta* and *giras* lands and cash allowance of the Vadodara State. The Baroda Barkhali lands in relation to *wanta* or *giras* are specifically defined to mean land held as *Jiwai*, *Jat*, *Dharmada*, *Devasthan*, *Pirathan*, *Vechania*, *Gharania*, *Pasaita*, *Chakariat*, *Dharmada Chakariat*, *Jat Pasayata*, *Kanyadan* or *Bathamania* and treated as permanent alienations under the Baroda *Giras* Rules.

This Act is made applicable to Vaghodia, Chhota Udepur, Padra, Sankheda, Vadodara, Tilakwada (Mahal), Jetpur-Pavi, Savli, Dabhoi, Karjan, Sinor and Naswadi talukas of the district. Before the law was enacted there were 17,954 tenure holders in scattered lands of 707 villages of the district. Of the 17,954 tenure holders 5,572 were in Padra taluka and the rest were found in Karjan (3,939), Dabhoi (2,850), Vadodara (2,421), Sinor (1,658), Savli (619), Vaghodia (612), Sankheda (224), Jetpur-Pavi (44), Chhota Udepur (9) and Tilakwada (6).

The alienations covered an area of 97,163 A. 08 K. assessed at Rs. 4,63,139.68 and the tenure holders paid Rs. 1,81,275.30 as Judi to Government. After the Act came into force, 1,794 persons became occupants in respect of area measuring 93,300. A. 30 G. and assessed at Rs. 4,19,053.42. In all 9,301 persons got occupancy rights without payment of occupancy price in respect of area admeasuring 60,625. A. 21 G. and assessed at Rs. 3,06,302.51. The persons who got occupancy rights on payment of occupancy price numbered 8,653 in respect of the area measuring 32,676 A. 19 G. and assessed at Rs. 1,43,790.35. Out of total amount of Rs. 8,77,525.41 payable as occupancy price Rs. 8,75,489.19 were paid.

In all 610 cases for compensation were filed and 606 cases were disposed of. Compensation paid amounted to Rs. 17,50,300. The total amount paid so far was Rs. 17,14,300. The cash allowances amounting to Rs. 16,201 were confirmed to 27 widows during their life time. Similarly, cash allowances amounting to Rs. 1,19,966.30 for others were also continued.

The Bombay Inferior Village Watans Abolition Act, 1958

In pursuance of the Government agrarian policy, the Bombay Inferior Village Watans Abolitions Act, 1958 abolished all the inferior village *watans* with their incidents. The *watandars* were not dispossessed of the land but were made eligible to the re-grant of the resumed land, on payment of the occupancy price equal to three times the amount of the full assessment of the land. Thus, the *watandars* were made occupants within the meaning of the Bombay Land Revenue Code, 1879. Occupancy of the land re-granted is not transferable or partible by metes and bounds with amount as the Government may determine by general or special orders. It may be pointed out that resumed land held previously by the authorised holder was also to be re-granted to him on payment by him to the State Government of the occupancy price equal to three times the amount of full assessment of the such lands. The Act makes provision for application of tenancy law to any *watan* land lawfully leased.

For abolition of the *watan* rights, the Act provides for compensation as follows.

(a) Where the full or portion of the assessment of the *watan* land was assigned towards the emoluments of the *watandars*, seven times the amount equal to difference between the amount of such assessment or portion and the amount of quit-rent (Judi), if any payable to the State Government by the *watandar*.

(b) Seven times the amount equal to annual cash allowance or other annual payment of money (not being the rent of land resumed under clause (b) of section 12 of the Bombay Hereditary Offices Act, 1874 or a like provision under any existing *watan* law), made by the State Government to the *watandar* under the existing *watan* law.

(c) Three times the cash value of the average of the customary fees or perquisites, in money or in kind levied or leviable by the *watandar* under the existing *watan* law during the three years immediately preceding the appointed date.

The Bombay Inferior Village Watans Abolition Act, 1958, is made applicable to Sankheda (186), Savli (135), Baroda (111), Dabhoi (106), Karjan (95), Padra (81), Vaghodia (62), Sinor (41), Naswadi (3) and Tilakwada (3) talukas of the district. Before the abolition of tenure these *watans* were spread in 823 villages of the district. The *watans* covered an area measuring 11,565 A. 30 G. assessed at Rs. 42,318.53 and the tenure holders paid Rs. 18,968.44 as Judi to Government. After implementation of the Act, occupancy rights were conferred upon 1,828 persons

in respect of area measuring 11,565 A. 30 G. and assessed at Rs. 42,318.53. All the 1,828 persons got occupancy rights on payment of occupancy price.

The Gujarat Agricultural Lands Ceiling Act, 1960

Ceiling on Land Holdings—The Gujarat Agricultural Lands Ceiling Act, 1960 was enacted and enforced with effect from 1st September, 1961. It provides for ceilings on existing holdings as well as on future acquisition. The ceiling is on a person which includes a joint family. No allowance is made for the size of a family. The ceiling area varies according to the class of land. In the case of dry crop land, ceiling varies from 56 acres to 132 acres, in the case of rice land from 38 acres to 88 acres and in the case of perennially irrigated land from 19 acres to 44 acres. Thus the ceiling varies from 19 acres to 132 acres according to local areas and classes of land. The level of ceiling on future acquisition is the same as that on existing holdings.

The ceiling areas prescribed for different classes of land are as under ;

Ceiling Area

Class of local area 1	Ceiling area in acres			
	Dry crop land 2	Rice land 3	Seasonally irrigated land 4	Perennially irrigated land 5
1 Class A ..	56	38	38	19
2 „ B ..	60	40	40	20
3 „ C ..	72	48	48	24
4 „ D ..	80	54	54	27
5 „ E ..	84	56	56	28
6 „ F ..	96	64	64	32
7 „ G ..	108	72	72	36
8 „ H ..	120	80	80	40
9 „ I ..	132	88	88	44

In the Vadodara district, 52 villages of Padra taluka, 48 villages of Vadodara taluka and 8 villages of Savli taluka have been placed under the local areas falling in class “A”. In the local areas falling in class “C” the following villages have been included : (1) All the villages of Sinor and Karjan talukas (2) All villages of Vaghodia and Dabhoi talukas, other than

those included in local area D; (3) All villages of Savli, Padra, Vadodara talukas, other than those included in local area A.

All the villages of Sankheda taluka, and 34 villages of Vaghodia taluka, 30 villages of Dabhoi taluka and 9 villages of Tilakwada mahal have been included in local area "D". Besides, in the local areas falling in class "F" following villages have been included : (1) 45 villages of Chhota Udepur taluka, (2) 36 villages of Naswadi taluka, (3) all villages of Jabugam taluka other than those included in local area H and (4) All villages of the Tilakwada mahal other than those included in local area D. Lastly in the local areas falling in class "H", the following villages have been included (1) 27 villages of Jabugam taluka and (2) all villages of Chhota Udepur and Naswadi talukas, other than those included in local area F.

About transfer, very stringent provisions have been made. No transfer or partition can be made by a person holding land in excess of the ceiling area after the commencement of the Act. Any transfer or partition made between 15th January, 1959 (the date of the Nagpur resolution) and 1st September, 1961, shall be deemed to have been made with a view to defeating the object of the Act and shall be ignored in computing the surplus land held by the person.

Under the law, the landowners are enjoined to declare the surplus area within the time limit prescribed. Elaborate provisions are made for computing the surplus lands.

Exemptions—The following categories of lands are, however, exempted from the ceiling limits:

(i) Lands held in compact blocks of efficiently managed farms on which heavy investments or permanent structural improvements have been made and breaking of which will lead to a fall in production;

(ii) lands leased to or held by bodies or persons for growing fruit trees and used for that purpose for not less than the last 3 years;

(iii) lands held or leased by approved Land Development Banks.

(iv) lands held or leased by approved co-operative societies for improvement of economic and social conditions of peasants or for ensuring the full and efficient use of land;

(v) lands leased or held by approved industrial undertaking which *bona fide* carries on any industrial operations;

(vi) lands being the property of a public trust for an educational purpose, hospital, Panjrapole, Gausala or an institution for public religious worship the entire income from which is for the purpose of the trust.

The lands in the categories mentioned above will not be taken into account in computing the ceiling area of a person but if the extent of the land held under such categories exceeds the ceiling area, the person will not be permitted to retain other lands.

The Gujarat Patel Watans Abolition Act, 1961

In order to remove Patel *watans* the Gujarat Patel Watans Abolition Act, 1961 was enacted. It came into force on 1st April, 1963. It abolished the Patel *watans* with all their incidents (including the right to hold office and *watan* property, and the right to levy customary fees or perquisites in money or kind and the liability to render services.) All the *watan* lands were resumed and subjected to payment of land revenue under the Bombay Land Revenue Code, 1879. It declared that in future, no office of a Patel shall be hereditary.

After resumption of the *watan* lands, the holder was deemed to be the occupant of the land subject to payment of land revenue to Government. In the case of authorised holders of *watan* lands the resumed *watan* lands were re-granted to the authorised holders on payment of occupancy price equal to six times the full assessment of such lands subject to payment of land revenue to Government (section 7). Where any *watan* land was in possession of an unauthorised holder, he was liable to summary eviction, but such land may be re-granted to him if such eviction would cause hardship to him on account of the investment made for development of lands or the non-agricultural use of the Land. Such re-grant shall be on the terms and conditions determined by the State Government (section 10). Lastly in the residual cases left out after re-grant under sections 5, 7 and 10 the lands were re-granted to the holders on payment of occupancy price equal to six times the full assessment of land.

For the abolition of all rights in *watans* compensation is provided in the Act. A *watandar* is entitled to compensation equal to the aggregate amounts calculated in the manner provided in the clauses (a), (b), (c) and (d) of the Act.

The law provides for the payment of compensation. Compensation payable is in cash if the amount does not exceed Rs. 1,000 and (2) if such amount exceeds Rs. 1,000 a sum of Rs. 1,000 shall be payable in transferable bonds which shall carry interest at the rate of three per cent from the date of issue and be repayable in twenty years from the said date by equated

annual instalments of principal and interest. The bonds shall be of such denomination and in such form as may be prescribed.

The Act was applicable to the Vaghodia and Savli talukas of the district. There were 49 tenure holders in 49 villages the district. Of the tenure holders, 47 were in Waghodia taluka and 2 were in Savli taluka. The *watans* covered the total area admeasuring 279 A. 08 G. and were assessed at Rs. 632.29 and the tenure holders paid Rs. 100.22 as Judi to Government. After abolition of the *watans*, 49 persons became occupants in respect of an area measuring 279 A. 8 G. and assessed at Rs. 632.39. All the 49 persons got occupancy rights on payment of occupancy price amounting to Rs. 18,129.82.

The Gujarat Surviving Alienations Abolition Act, 1963

The Gujarat Surviving Alienations Abolition Act, 1963 has been brought into force with effect from 1st October, 1963. The Act has been brought into force with a view to doing away with the surviving *inams* which were not abolished by any of the tenure abolition laws of the former Bombay State. The Act extends to the whole of Gujarat State. It abolishes alienations altogether with incidents thereof and alienated lands have been made liable to the payment of land revenue.

In the district, alienations were not in existence except in Dabhoi taluka where there were seven villages and 265 tenure holders prior to enactment of the Act. They covered an area admeasuring 1,506 A. 29 G. assessed at Rs. 5,644.18. The tenure holders paid Rs. 640.52 as Judi to Government. In all 265 persons became occupants on payment of occupancy price for area admeasuring 1,506 A. 29 G. and assessed at Rs. 5,644.18. In all 11 Cases were filed for compensation and decided. The amount of compensation awarded was Rs. 425.34. The amount paid in cash so far is Rs. 224.50.

The Gujarat Devasthan Inams Abolition Act, 1969

In order to abolish the inams held by religious or charitable institutions in the former Bombay area of the State of Gujarat, the Gujarat Devasthan Inams Abolition Act, 1969 was enacted and brought into force with effect from 15th November, 1969. The Act has a limited application. Firstly, it extends to only the former Bombay area of the State of Gujarat and excludes the Saurashtra districts and Kachchh from its purview. Secondly, it applies to the Devasthan Inams consisting of lands only and not to cash allowances or allowances in kind.

It abolished Devasthan inams consisting of lands only together with all their incidents, which have been made liable to payment of land revenue.

Occupancy rights are granted to (i) the inamdar, where such land was in his possession and had been cultivated on behalf of the inamdar (2) authorised holder or inferior holder, where such land was in possession of an authorised holder or inferior holder and (3) the inamdar, where such land was in possession of a person other than the inamdar, authorised holder, unauthorised holder or inferior holder.

Where any Devasthan land is in possession of an unauthorised holder, it shall be resumed and an unauthorised holder shall be summarily evicted. If in the opinion of the State Government, the eviction of such holder would entail hardship on him in view of the investment made by him in the development of the land or in the non-agricultural use, the State Government may direct the Collector to re-grant the land to such holder on payment of such amount and subject to such terms and conditions as the State Government may determine. If such land is not so re-granted, it shall be liable to be disposed of under the provisions of the Bombay Land Revenue Code, 1879. The lands, which are not so re-granted, shall be disposed of under the provisions of the Land Revenue Code.

All public properties have been vested in Government. All rights held by an Inamdar in such property shall be deemed to have been extinguished and such lands shall be available for disposal by the Collector.

For abolition of the inam rights in Devasthan lands, provision is made for payment of compensation to the Inamdars in the form of perpetual annuity. Compensation shall be payable to the Inamdars on application to the Collector. The Collector shall decide the compensation applications. An appeal against Collector's decision shall lie to the Gujarat Revenue Tribunal.

The Act provides for abolition of (1) the exemption enjoyed by institutions for public religious worship under section 88-B of the Bombay Tenancy and Agricultural Lands Act, 1948, (2) the exemption which was available to the Devasthan Inams in regard to the provisions available to the landlord in regard to the termination of tenancy and (3) the exemption which was provided for the Devasthan inam land in the Ceiling Act.

There were in all 5 entire Devasthan villages in the district admeasuring 9,404 A. 21 G. and assessed at Rs. 14,267.89 affecting 6 Inamdars. Out of 5 villages, 3 villages were in the Chhota Udepur taluka, and the rest were spread over in the talukas of Karjan (1) and Vaghodia (1). In addition to these villages, there were 662 scattered land Devasthan Inam villages. Out of 662 villages, 119 villages were in the Dabhoi taluka and the rest were spread over in the talukas of Vadodara (111), Savli (108), Karjan (94), Padra (86), Sankheda (49) Sinor (41), Vaghodia (33), Chhota Udepur (14) and Tilakwada (7). They covered an area measuring 8,939 A. 11 G. and assessed at Rs. 32,830.21. There were 1,338 persons

holding scattered Devasthan Inam lands. The total properties vesting in Government admeasuring 2,949 A. 30 G. Under the Act 664 Inamdars became occupants. In all 48 cases were filed and 26 were decided. The total amount of compensation awarded was Rs. 2,104-35. Out of the total 22 pending cases 3 are pending because of the Say given by the Supreme Court.

The Bombay Tenancy and Agricultural Lands Act, 1948

The tenancy rights in the district are regulated at present under the Bombay Tenancy and Agricultural Lands Act, 1948. In the former Bombay State, there was no special law regulating the relations between landlords and tenants. The relations between the two were mostly governed by mutual contracts or local usage and customs. The provisions of section 83 of the Bombay Land Revenue Code, 1879 constituted the tenancy law of the State. With a view to safeguarding the rights of tenants in the Bombay State, the first tenancy legislation called the Bombay Tenancy Act, 1939 was enacted. This Act introduced a concept of protected tenants covering those tenants who held land continuously for a period of not less than six years. It gave to the tenants for the first time, fixity of tenure a ceiling on rentals, rights in house-sites and trees and protection from eviction under certain circumstances. After Independence, this Act of 1939 was replaced by a comprehensive legislation in 1948. This Act was amended extensively in 1956. When an amendment to the Bombay Tenancy and Agricultural Lands Act, 1948 was enacted, it provided that on the 1st April, 1957 described as the "Tillers' Day". Every tenant whether permanent, protected or ordinary, was deemed to have purchased from the landlord the land leased to him subject to the condition that the tenant cultivated the land personally and his total holdings did not exceed the ceiling areas and the purchase price did not exceed 200 times the assessment. This Act was also amended from time to time as under :

<i>Act</i>	<i>Date of implementation</i>
1 The Bombay Tenancy and Agricultural Lands Act, 1948 (Bombay, Act LXVII of 1948) ...	28-12-48
2 —do.— XII of 1951 ...	24- 4-'51
3 —do.— XXIV of 1951 ...	16-10-'51
4 —do.— XLV of 1951 ...	30-11-'51
5 —do.— XXXIII of 1952 ...	28- 1-'53
6 —do.— LX of 1953 ...	23-11-'53
7 —do.— XIII of 1956 ...	1- 8-'56
8 Bombay Ordinance of 1957 ...	2- 2-'57
9 —do.— XV of 1957 ...	3- 4-'57

10 Bombay Ordinance XXX-VIII of 1957 ...	28- 9-'57
11 —do.— LXIII of 1958 ...	11- 7-'58
12 Gujarat Act XIV of 1960 ...	13-12-'60
13 —do.— XXVII of 1961 ...	1- 9-'61
14 —do.— XXXVII of 1965 ...	29-12-'65
15 Ordinance No. 3 of 1969 ...	17- 7-'69
16 Gujarat Act No. XV of 1969 ...	17- 7-'69
17 Gujarat Act No. II of 1971 ...	9- 2-'71

The original Tenancy Act of 1948 as amended in 1956 made comprehensive provision for regulation of rent, security of tenure, transfer of ownership to tenants, imposition of ceilings on existing holdings as well as future acquisition, restrictions on transfers of agricultural land, management of uncultivated lands, etc. Under the law, maximum rent is not to exceed five times, the assessment or Rs. 20 per acre and shall not be less than twice such assessment and where the amount equal to twice the assessment exceeds the sum of twenty rupees per acre, the rent shall be twice the assessment.

As regards Security of tenure, permanent tenants have been given complete security of tenure. Other tenants are given security subject to landlord's rights to resume lands not exceeding 3 economic holdings (12 to 48 acres) on conditions that every tenant retains half the area leased. A small holder is defined as a person who has leased land not exceeding one economic holding and whose total annual income does not exceed Rs. 1,500. He can resume half the area leased from a tenant in all cases. Certain constraints on resumption have been provided. The main constraints are that the income by the cultivation of land of which a person is entitled to take possession is the principal source of income for his maintenance and that the land lessed stood in his name or any of his ancestors on January 1, 1952. If a landlord after resuming the tenancy not cultivate the land personally within one year of resumption or after having commenced cultivation, discontinues the same within 10 years, the tenant will be entitled to restoration.

Transfer of ownership to permanent tenants was provided with effect from Tillers' Day, i. e., 1st April, 1957. Other tenants except those of small holders were also deemed to have acquired ownership from that day. As regards tenants of small holders, the law was subsequently amended to provide transfer of ownership to tenants in respect of non-resumable lands with effect from 1st April, 1962. During the course of implementation, it came to the notice of Government that in several cases, there was a possibility of purchases by the tenants becoming ineffective due to the tenants' absence before the tenancy courts and due to their unwillingness to purchase these lands. In many cases, their purchases were likely to become ineffective

due to non-payment of due instalments of purchase price to the landlord. The State Government has, by two important amendments, tried to prevent such ineffective purchases. Under one amendment the tenants who remained absent before the tenancy courts and who expressed unwillingness to purchase the land have been given an opportunity to apply for purchase of the land, if they have not still been disposed of by submitting an application within one year from 29th December, 1965. By another amendment, the State Government had extended the period of paying arrears of instalments by three years more. The Government has, at the same time framed Rules under the Agriculturists Loans Act for advancing tagavi to assist them in paying the arrear amount of the instalment within the extended period of three years.

In December, 1972, the Gujarat Assembly adopted with minor amendments the Tenancy Amendment Bill which safeguards the rights of tenants by plugging loopholes in the existing Bombay Tenancy and Agricultural Lands Act, 1948. One of the most radical provisions of the amendment pertains to a ban on the sale of farm land for agricultural use to a non-agriculturist whose annual income exceeds Rs. 5,000. The measure is intended to prevent the entry of non-agriculturists into the farm sector as many of those earning more than Rs. 5,000 buy farm land to avoid the payment of income tax. As a result, genuine farmers find it difficult to secure land in the open market because of prohibitive prices.

The law also guarantees occupancy rights to tenants who has surrendered their tenancies but had continued to remain in actual possession of the land with or without the consent of the landlords upto the specified date.

The details of the implementation of the Act till 31st July, 1974 are given below :

*Statement showing transfer of ownership of land to tenants
under section 42 (G) of the Bombay Tenancy
and Agricultural Lands Act, 1948.*

Sl. No. 1	Item 2	No. of tenants 3	Area in acres 4
1	No. of tenants on 1st April, 1957 with the area of land under their cultivation ..	1,19,632	3,83,603
2	No. of tenants who acquired right of ownership under section 32 (G) with area ..	99,986	3,19,943
3	No. of tenants who have paid the purchase price fully and became full fledged occupants ..	45,672	..
4	No. of tenants who still continue as tenants with area held by them ..	16,966	50,571

From the foregoing statement it is observed that there were 1,19,632 tenants on 1st April, 1957 holding 3,83,603 acres of land, out of whom 99,986 tenants acquired occupancy rights under section 32 (G) an area admeasuring 3,19,943 acres. In all 45,672 tenants paid purchase price fully and became full fledged occupants, 16,966 tenants still continue as tenants for an area admeasuring 50,571 acres.

SURVEY AND SETTLEMENT

The Vadodara district consists of 10 talukas and 2 mahals formed out of the former Baroda, Bhadarva and Chhota Udepur State areas and areas of Sankheda Mewas Thana and the whole of Pandu Mewas. The settlement of the areas survey and settlement operations were carried out. The settlement of the revenue was made taluka wise at long intervals of 15 to 30 years by officers appointed specially for that purpose. The conditions at the time of original settlement did not justify settlements for a period longer than 15 years. The settlement was based on the principle that land should be assessed in accordance with its capabilities. Revision settlements were also carried out. The table given below indicates the years in which Original and Revision Survey Settlement of various talukas of Vadodara district were carried out during the time of Baroda State.

Sl. No. 1	Name of taluka 2	Year of original survey settlement 3	Year of revision survey settlement 4
1	Vadodara Taluka ..	1892	1915
2	Dabhoi ..	1889	1910
3	Sinor ..	1890	1908
4	Sankheda ..	1892	1911
5	Karjan ..	1892	1914
6	Tilakwada (Peta) ..	1893	1914
7	Padra ..	1889	1908
8	Savli ..	1889	1914
9	Vaghodia ..	1891	1911

The former Baroda, Bhadarva and Chhota Udepur State areas were surveyed—the former according to *chokmapni* system and the latter according to the chain and cross staff method and their land revenue settlement was

considered scientific. Therefore, after merger no survey or classification operations were necessary. As regards villages of Sankheda Mewas and Pandu Mewas, the survey and classification was carried out under Merged State Areas Survey Scheme in all the villages except 74 villages of the former Sankheda Mewas, where mainly on account of Stay orders from the Court of Law, the survey and classification records were not handed over by the former Jagirdars.

In the Merged State Areas, in order to bring land revenue assessments on par with those obtaining in the homogeneous pre-merger areas, Land Revenue Rule 19-N, was framed. For fixing land revenue assessments in areas which were not settled or not scientifically settled on lines similar to Bombay Land Revenue Code, Land Revenue Rule 19-0 was framed. Both the above rules were framed under Bombay Land Revenue Code Section 52. According to Rule 19-N the standard rates of the scientifically settled areas were then compared with the standard rates of Comparable Union Areas and remission was granted to the extent of the excess of the former over the latter. Under Land Revenue Rule 19-0, groups of the villages of the merged areas were formed on consideration of their homogeneity in respect of permanent and semi-permanent factors mentioned above and then Comparable Union of these villages were fixed as under Land Revenue Rule 19-N and land revenue assessments in such areas were worked out by application of three factors.

In merged areas, there were several villages held on jagiri tenure. The jagiri tenure was abolished under the Bombay Merged Territories and Area (Jagirs Abolition) Act, 1953 and the assessment of each survey number or sub-division was fixed by applying the rate of the adjoining homogeneous *khalsa* village under section 7 of the Bombay Merged territories and Areas (Jagirs Abolition) Act.

The former Baroda, Bhadarva and Chhota Udepur States had adopted Gujarat classification system, according to which, lands irrigated from wells were treated as Dry Crops lands with an additional classification factor, viz., sub-soil, so as to levy higher land revenue assessment on consideration of the capacity of the wells and soils. Lands irrigated from 2nd Class and 1st Class irrigation works, which were in charge of Public Works Department, were subjected to separate irrigation cess and irrigation rates under the Bombay Irrigation Act. But lands irrigated from smaller works like tanks, which were not governed by the Bombay Irrigation Act, were subjected to *himayat* assessment which was clubbed with the land revenue. Occasional use of water from Government resources was allowed free for agriculture purposes if used with permission.

1. Union Areas—areas forming parts of the Pre-Independence districts of Bombay Province.

REVENUE ADMINISTRATION

The Revenue Department is the oldest and the best known department to the general public. The Collector who is *ex-officio* District Magistrate is the head of the department and the agent of the State Government in the district. He is known as the Head of the district organisation. In fact, he is in charge of general administration. He also administers revenue laws and various other laws for which separate departments are not considered necessary. The Revenue Department implements the Bombay Land Revenue Code and the Rules thereunder, the Mamlatdar's Court Act, the Bombay Tenancy and Agricultural Lands Act, the Bombay Agricultural Land Ceilings Act, the Bombay Prevention of Fragmentation and Consolidation of Holdings Act, the Bombay Stamps Act, the Bombay Court Fees Act and the Court of Wards Act, the Bombay Irrigation Act, the Guardian of Wards Act, are implemented by the department. There are number of Land Tenure Abolition Laws which are implemented by the department.

The Revenue Department is in over-all charge of the relief measures during natural calamities like floods, famines and the fires. In the rural areas, the work is carried out by the Panchayat Officials according to Government orders. The Rehabilitation Programmes are chalked out in consultation with the District Collector. In the work of Revenue Department, Collector plays an important role.

The Collector is able to maintain purposive contacts with different sectors of the public with the help of the width and depth of the experience gained in handling men, situations and implementing various social laws. To assist him, there are various officers in the Revenue Department. The Prant Officers and the Mamlatdars in charge of the talukas are the field Officers. They are assisted by the Circle Officers, Circle Inspectors and the Village Accountants who are known as *Talati-cum-Mantri*. At present, there are 3 Prants, viz., Vadodara, Dabhoi and Chhota-Udepur and there are 11 talukas held by Mamlatdars and one Mahal, viz., Tilakwada held by the Mahalkari performing all functions of the Mamlatdar and the Taluka Magistrate. Vadodara taluka has got population of about 5 lakhs and so the post of an additional Mamlatdar is created since 1st August, 1972.

At the headquarters, there is a Resident Deputy Collector who is *ex-officio* Additional District Magistrate. He can perform all the functions of the District Magistrate under the Criminal Procedure Code and all other laws.

There are number of branches dealing with various subjects in the collectorate and they are headed by the officers like Chitnis, Additional Chitnis, Head-Clerk, Special Mamlatdar for small savings, Deputy Chitnis, Deputy

Accountant, Rehabilitation Head Clerk, etc. Special officers are appointed to deal with special type of works like Deputy District Election Officer, Special Land Acquisition Officers, Tenancy Deputy Collector, Tenancy Mamlatdars, Levy Mamlatdar, Sales Tax Recovery Mamlatdar, etc.

After introduction of the Panchayati Raj in April, 1963 many of the revenue duties, particularly functions regarding developmental programmes and collection of land revenue have been transferred to the Panchayati Raj institutions. Still the revenue duties of maintaining law and order, maintenance of land records, settlement of land revenue, civil supply and co-ordination of the activities of other departments in the district continue with the Revenue Department.

The other functions of Collector relate to review of plan progress, supervision of work relating to city survey and land records, collection and co-ordination work of national saving scheme and other funds, general supervision over the functions of municipalities, performing the work of civil supplies and maintenance of law and order. Collector is the District Election Officer and the Returning Officer for the Parliament Elections. He is also the Chairman of District Selection Committee and District Co-ordination Committee.

In short, the Collector exercises power under different statutes numbering over 80. As District Magistrate, he exercises power under 40 different Acts. The amazing variety in work provides dynamism and strength to the office of the Collector.

FUNCTIONS OF THE LAND RECORDS DEPARTMENT

In the Vadodara State a Survey and Settlement Department was in existence. The Land Records Department is now a separate department of Gujarat State and is an adjunct to the Revenue Department. At the State level, the department is headed by the Settlement Commissioner and Director of Land Records. For administrative purposes, the State is divided into circles each in charge of a Superintendent of Land Records, who has under him Inspectors of Land Records functioning at the district level.

The functions of the Department of Survey and Settlement are (1) to maintain all survey, classification and settlement records up to date by keeping careful notes of all changes, and for this purpose to carry out field operations preliminary to incorporation of the changes in the survey records, (2) to collect and provide statistics necessary for the sound administration at all matters connected with land, (3) to help reduce, simplify and cheapen litigation in revenue and civil courts by providing reliable survey and other records, (4) to supervise the preparation and maintenance of Record of Rights and, of the periodical inspection of boundary marks, (5) to

conduct periodical revision and settlement operations, (6) to organise and carry out village site and city surveys on an extensive scale and arrange for their proper maintenance (7) to undertake special surveys for private individuals and public bodies, surveys in connection with railways, municipal and local projects, town planning schemes, and survey for the Defence and other Government departments, (8) to maintain upto date village, taluka and district maps, reprint them and arrange for their distribution to various Government departments for administrative purposes and sale to the public, and (9) to train revenue officers in survey and settlement matters.

The District Inspector of Land Records, Vadodara is the principal officer in charge of the Land Records Department in the district. He is a gazetted officer (of a Mamlatdar's rank) appointed by the Settlement Commissioner and Director of Land Records, Ahmadabad and is directly subordinate to the Superintendent of Land Records, Vadodara Circle, Vadodara in all technical matters. He is also subordinate to the Collector of Vadodara and has to carry out all administrative orders of the Collector in the matter of survey and land records. He is headquartered at Vadodara, the headquarters of the district.

Record of Rights—The Record of Rights has been introduced in all the villages of the district. After survey, the Land Records Department supplied the *mapni* or survey register and map to the revenue officials for compilation of Record of Rights. Section 135 B (1) of the Land Revenue Code provides that the Record of Rights should contain the following particulars :

(a) names of all persons who are holders, occupants, owners, or mortgagees of the land or assignees of the land or assignees of the rent or revenue thereof; (b) the nature of extent of the respective interests of such persons and conditions or liabilities attached thereto; (c) rent or revenue, if any, payable by or to any such persons; and (d) such other particulars as the State Government may prescribe under the Land Revenue Rules.

The State Government has now applied these provisions to all tenancies by Notification under section 135-B (2) of the Code, whereunder any acquisition of right in land is to be reported to the village officer within 3 months by the person acquiring it, unless the right is acquired under a registered document.

INCOME FROM LAND REVENUE AND SPECIAL CESSES CONNECTED WITH IT

Land revenue is one of the important sources of income in the district. The Statement XI-1 shows the demand, collection, remission and suspension in respect of the land revenue for the years 1970-71, 1971-72 and 1972-73.

STATEMENT XL1

Land Revenue, Demand, Collection, etc., for the Years 1970-71,
1971-72 and 1972-73

		(IN RUPEES)		
	Item	1970-71	1971-72	1972-73
1	Demand :			
	(a) Current ..	80,62,161	1,03,01,482	87,21,158
	(b) Arrears ..	40,43,031	51,50,543	61,11,818
	(c) Total ..	1,21,05,192	1,54,52,025	1,51,32,977
2	Collection ..	67,12,034	87,16,303	71,85,174
3	Remission and write off ..	2,42,616	3,23,904	23,03,800
4	Suspension ..	25,47,366	22,78,880	28,01,405
5	Percentage of collection ..	72%	67.8%	72%

Source :
District Development Officer, Vadodara

Local Fund Cess

In order that the incidence of taxation may fall equally on all and a fund called local cess was started in the former Baroda State. Local Fund, as in British India began to be collected in the former Baroda State from the year 1892-93. This idea of imposing a local cess was conceived and put into practice when the Survey and Settlement had been introduced in about one half of the number of talukas of the State. The cess was at first amalgamated with land revenue and Government made allotments for local works in each district out of the general revenue. But it was the Rulers to create Local Boards for the purpose of introducing Self-Government in local matters. He directed in 1903-1904 that the proceeds of the local cess should be separated from those of the land revenue and made over to the Local Boards. This order was fully carried out in the year 1904-05.

The cess at present is levied under section 93 of the Bombay District Local Boards Act, 1923. After the implementation of the Gujarat Panchayats Act, 1961, the cess is collected by the village panchayats, as the functions of collecting land revenue and local fund cess have been transferred to the panchayats. The cess which was first levied at the rate of 20 paise in every rupees of land revenue is now levied at the enhanced rate of 50 paise from 1st July, 1966.

In the Gujarat Panchayats Act, 1961, a provision has been made for levy of an additional cess. At the request of the *gram* and *nagar panchayats*, the State Government may levy an additional cess upto 25 paise on every rupee of land revenue payable to Government in the area within the jurisdiction of such panchayats. If such panchayats undertake for benefit of the community any special work or project which is to be completed within a specified period and for which additional funds are needed, it may pass a resolution at its meeting and after obtaining previous permission of the district panchayat apply to the State Government to increase the rate upto 100 per cent in the land revenue payable to the State Government as ordinary land revenue.

Under section 195 of the Gujarat Panchayats Act, 1961, out of the sum equal to average land revenue collected or recovered during 3 preceding years, a prescribed percentage is set apart for meeting expenditure on the salaries of the secretaries of the gram panchayats and the village accountants (talatis) in the State and on their training. A sum of 5 per cent is paid in to State Equalisation Fund established under section 196 of the Act. The balance amount is distributed as grants to the gram/nagar, taluka and district panchayats and for constitution of the District Equilisation Fund and the District Gram Encouragement Fund established under Sections 197 and 198 of the Act. Under section 176 of the Gujarat Panchayats Act, 1961 the net proceeds of the local cess are paid by the State Government to the District Panchayats. However, 40 per cent of the proceeds from the local fund cess are credited by the Panchayats to Government account as contribution by the Panchayat for financing plan schemes.

Government has decided not to recover land revenue from 1st August, 1972 from small *Khatedars*, viz., those who hold land not in excess of 1/16 of the ceiling as specified in Gujarat Agricultural Lands Ceiling Act, 1960. Government has also decided that the Panchayats should not suffer on this account and Government would suitably compensate the panchayats for the loss of their revenue.

Irrigation Cess

The irrigation cess levied was formerly in respect of land under irrigation command of a canal under Section 56(c) of the Bombay Irrigation Act, 1879. The irrigation cess was in addition to the water rates or other charges leviable under the provisions of this Act. The actual rates of the cess were to be notified by Government as per Section 56E of the Act. The rate of cess was Rs. 2.50 per acre (vide Government Notification, P. W. D. No. GHJ-186/WTR/1068/2/P, dated 22nd May, 1968). No such cess is, however, collected with effect from 15th February, 1970 as per the judgement of the Gujarat High Court declaring Section 56E as illegal on the Writ Petition of certain cultivators.

Education Cess

In order to provide for the increase in expenditure on education, it was considered necessary to raise additional resources and to provide for carrying the proceeds thereof a separate fund for expenditure on promotion of education in the State. Accordingly a surcharge on agricultural and non-agricultural lands was levied by enacting the Gujarat Education Cess Act, 1962. The Act came into force from 1st August, 1962. An Education Cess Fund has been created out of the receipts from (i) the surcharge on all lands, agricultural and non-agricultural assessed to land revenue, and (2) tax on lands and buildings in urban areas. A surcharge of 20 per cent is levied with effect from 1st August, 1962 on agricultural lands which are assessed or held for the purpose of agriculture and not used for any purpose unconnected with agriculture. A surcharge varying from 12½ per cent to 75 per cent of non-agricultural assessment is levied on all unalienated lands subject to non-agricultural assessment and on all alienated lands (excluding village sites) used for purposes other than agriculture.

Under Section 12 of the Gujarat Education Cess Act, 1962, a tax on lands and buildings situated in an urban area is levied at the following rates :

Sl. No.	Item	Rates of tax (as percentage to the annual letting value).	
		Lands and buildings used for residential purposes.	Lands and buildings used for trade, commerce or industry or the carrying on of a profession or business
1	2	3	4
1	If the annual letting value is upto Rs. 300	..	exempted
2	If the annual letting value is above Rs. 300 but upto Rs. 1,000	..	3
3	If the annual letting value is above Rs. 1,000 but upto Rs. 2,000	..	5
4	If the annual letting value is above Rs. 2,000 but upto Rs. 4,500	..	6
5	If the annual letting value is above Rs. 4,500	..	7

The surcharge levied on agricultural as well as non-agricultural lands is transferred at the end of the year to the State Education Cess Fund and utilised on schemes for promotion of education in the State. During 1963-64, Government had directed that one third of the tax collected on lands and buildings within the municipal areas should be given to the municipalities as grant with effect from 1st August, 1962, the date from which the cess has been levied. Against a total demand of Rs. 21,47,000 a sum of Rs. 17,17,000 was collected as Education Cess in 1972-73 in the district.

THE BHOODAN MOVEMENT

In order to reduce inequalities in the distribution of land, legislative measures for abolition of intermediaries, tenancy reforms and land ceilings have been adopted by the State Government. These measures have not effectively helped to solve the problem of landless labourers. In this context, the contribution of the Bhoodan Movement as one of the schemes of land distribution to the landless has got a special importance and value. Secondly, this movement is a reminder that the land problem cannot be solved by legislation alone. The Bhoodan Movement also attempts at the abolition of the concept of private ownership. The fundamental principle of the movement is that all land belongs to God (*Sub Bhumi Gopalki*) and a man is only a trustee of the land which should be treated as a social agent of production for the entire community.

This movement, which started in 1951 in Telengana region of the former Hyderabad State (now in Andhra Pradesh) spread during the walking tours undertaken by Shri Vinobaji.

Distribution of Donated Lands

Since the distribution of the donated lands is vital to the success of the movement, it is necessary to know the main rules for the land distribution, which are stated below :

(1) The date on which the land is to be distributed is announced by beat of drum or leaflets in the village.

(2) The Revenue Officers from Talati to Collector upwards and the village panchayat members attend the function.

(3) As far as possible, one-third of the land is given to the Harijans.

(4) As far as practicable, the land is given to the landless of that very village. After distribution to the landless, the excess land, if any, may be distributed amongst the landless of the adjacent villages. Such lands are to be given to persons who are capable and willing to cultivate land personally.

(5) For a family of 5 persons, 1 acre of irrigated land or 2½ acres of dry land should be granted. Under special circumstances, land exceeding 5 acres may also be given.

(6) Attempt should be made to consolidate the scattered lands into the compact block. If small parcels of land cannot be given for cultivation, they may be assigned for manure pits, public latrines, etc.

(7) The lands, which are cultivable, should be liable to payment of land revenue to Government from the day of grant.

(8) If such lands remain uncultivated for a period of 2 years, it will be open to Government to grant them to other landless persons.

(9) Three-year limit is fixed for making cultivable virgin lands, waste lands or Khar lands, so donated.

These are the main principles of distribution of lands in the Bhoodan.

RURAL WAGES

The rural wage structure is not uniform but it varies slightly from one tract to another tract. It also depends on the availability of local labourers and the type of season, *i. e.*, busy or slack. The rates and levels of wages vary according to different agricultural operations. The wage structure analysis tries to explain inter-related wages rates, *i. e.*, various wage differentials and wage equalities in the economy. The wages paid to men and women labourers are same for weeding, transplanting, picking and harvesting but it will differ in case of men labourers working as a ploughmen. Children are also employed in agriculture and are paid low wages. The labourers are usually paid in cash and rarely in kind. The daily wage rate has increased considerably during the last 3 to 4 years.

In the district, large number of persons possess no lands of their own but are dependent upon the agriculture for their livelihood. The agricultural labourers in the district are drawn from the following castes, *viz.*, Harijans, Barias, Thakors, Weavers, Chamars, Bhils, Vasavas, Tadvis, etc. Some of these labourers have marginal lands and they work as agricultural labourers when they have no work on their own land. The farm labourers are recruited in the district both for permanent and casual employment.

Permanent Labour

The important system of permanent labour, prevalent in the district is the 'Sathi' or 'Chakar'. The Sathi or Chakar is engaged for the whole year and does all types of farm work. The Sathi is mostly treated as one of the

member of the farmers family. In some cases, the 'Sathi' is given a lump sum of Rs. 1,500 to Rs. 1,500. He occasionally gets the amount as and when required by him. In some cases, he is paid yearly Rs. 700 to Rs. 800 in cash and he is supplied with food, clothes, tea, Bidis and shoes. The conditions of contract is not uniform but it will vary slightly in individual cases.

Payments to Annual Servants (Sathi)

	Payment in Rs. During				Supply of food, clothing, tea etc.	
	1938-39	1948-49	1960-61	1965-66	1972-73	
Annual Payment to Sathi	30 to 40	50 to 60	200 to 250	350 to 400	700 to 800	600 to 700

Casual Labour

Most of the land holders employed casual field labourer except an Adivasi farmers who generally works himself with the members of his family. The Adivasi farmer employs labourers when he has big holding. In Vadodara district, the number of rural agricultural labourers was 204,966 as per 1971 Census. There is a general shortage of agricultural labourers in the district and this shortage is made good by Adivasi labourers of Panch Mahals district. The table given below gives a comparative idea of the increase in the number of agricultural labourers.

Year	Agricultural labourers	Total area cultivated in hectares	No. of labourers per 100 Hectares
1	2	3	4
1955-56	1,48,359	5,36,320	28
1961-62	1,62,316	5,36,497	30
1971-72	2,04,966	5,63,899	36

From the above table, it can be observed that the alongwith the cultivated area to the number of agricultural labourers has also increased. However, the increase in cultivated area is negligible.

The casual labourers are paid from Rs. 2-50 to Rs. 3-00 and they work for 6 to 7 hours per day. This district has 50 per cent of cultivated area under cotton and hence the picking of *kapas* (Cotton) is done on a contract basis by the labourers *i. e.*, at the rate of Rs. 2-50 to Rs. 3-00 for 20 kilos. In Hybrid-4 Cotton variety, one labourer can pick from 30 to

40 kilos of *kapas* and, therefore, naturally he gets more daily wages. During the transplanting of Paddy and tobacco, the labourers are paid from Rs. 3-00 to Rs. 4-00 per day and in addition to this, they are given free tea and *bidi*.

Rate of Wages According to Nature of Operations

Sl. No.	Nature of Operation	Payment of daily wages in cash or kind during					Other local fees given
		1938-39	1948-49	1960-61	1965-66	1972-73	
1	2	3	4	5	6	7	8
1	Payment for operating implements (ploughing, harrowing, sowing, carting, etc.)	Rs. P. 0-12	Rs. P. 0-50	Rs. P. 0-75	Rs. P. 1-00	Rs. P. 3-00 to 3-50	..
2	Wages for harvesting cereal crops (Bajri, paddy, wheat, etc.)	0-12	0-50	0-75	1-00	2-50 to 3-00	..
3	Wages for threshing out grounds	0-75	1-00	1-00	1-50	2-50 to 3-00	..
4	Payment of wages to contract labour for special operations e. g. sugarcane (harvesting, crushing, carrying and boiling juice etc.)	0-50	0-75	1-00	1-50	2-50 to 3-00	..

REGISTRATION

Registration of Documents

In the former State of Baroda, Maharaja Khanderao had enacted Registration Act on the lines of British India in 1869. Under this Act a special Registrar was appointed for the city of Vadodara. In the talukas Vahivatdars were charged with the duty of registering documents. At present Registration of certain documents is compulsory under the provisions of section 17 and optional in case of other documents under section 18 of Indian Registration Act, 1908. Generally fees are levied for registration of documents. However, the State Government have exempted Co-operative Societies registered under Gujarat Co-operative Societies Act, 1961 from payment of such fees. Certain type of Societies enjoy restricted exemption in respect of certain documents involving consideration upto a prescribed limit, fees being charged for registration of documents with higher consideration.

Marriages under Special Marriage Act, Parsee Marriage Act, Indian Christian Marriage Act are also registered. Marriage memoranda are filed under Bombay Registration of Marriage Act.

Registry Offices

There are nine sub Registrars in the district at the following places, viz., (1) Vadodara, (2) Padra, (3) Dabhoi, (4) Karian, (5) Savli, (6) Sinor, (7) Sankheda, (8) Vaghodia and (9) Naswadi.

The Sub-Registrar, Dabhoi holds his office at Chhota Udepur for three days from the months of March to June and for two days from the months of October to February as the District Registrar may fix. The Sub-Registrar, Naswadi (Head Quarters Tilakwada), holds his office at Naswadi on every Thursday from the months of February to June every year.

District Registrar

The Collector is the *ex-officio* District Registrar. He exercises powers of supervision and inspection over the entire registration staff in the district. Though the Inspector General of Registration is the appointing authority of Sub-Registrars, the District Registrar has powers to fill in temporary vacancies. He hears appeals and applications preferred to him under sections 72 and 73 of the Registration Act, 1908 against refusals to register documents by the Sub-Registrars subordinate to him. He is also employed, under sections 25 and 34 of the Act, to condone delays in presentation of documents and appearance of executants provided the delay does not exceed four months, and direct such documents to be registered on payment of fine, not exceeding ten times the prescribed registration fees. He is also competent to order refund in case of surcharges and to grant full or partial remission of Safe Custody fees in suitable cases, under the provisions of section 42 of the Act, a Will or Codicil may be deposited in a Sealed Cover and it may be got registered at the party's cost, if so desired, after the depositor's death. He is also authorised to record and register births and deaths under the Births, Deaths and Marriages Registration Act (VI of 1886).

Sub-Registrar

The main functions of the Sub-Registrars are to register documents, keep a record of all documents registered and to send to officers concerned extracts from documents affecting immovable property in respect of which Record of Rights is maintained. Every Sub-Registrar is an *ex-officio* Registrar under Parsee Marriage and Divorce Act, 1936. The Head Quarters, Sub-Registrar, Vadodara is also the Marriage Officer for Vadodara district and is vested with powers to solemnise and register marriages under Special Marriage Act, 1954. Moreover, he assists the Collector for determination of stamp duty of documents impounded under section 33 of the Bombay Stamp Act, 1958 (IX of 1958) and also in adjudication of cases under section 31 of the aforesaid Act. He also assists the Collector in disposing of cases under sections 40 and 68 of the said Act.

The annual income of the Registration Department in Vadodara district was Rs. 6,26,734 and the expenditure was Rs. 96,408 for the year 1972. Copying of documents is done by photography in Sub-Registry office, Vadodara. At the remaining Sub-Registry offices of Vadodara district Copying is done by hand. Out of 20,048 documents affecting immoveable property registered in the district 19,684 documents, falling under compulsory registration, were of the aggregate value of Rs. 9,82,54,080 while 364 documents falling under optional registration were of the aggregate value of Rs. 17,28,163. 170 documents pertaining to movable property were of the aggregate value of Rs. 42,051. In all 403 wills were registered in the district in 1972-73. Total number of documents registered during the same year in the district was 20,621.

STAMPS

The Superintendent of Stamps in Gujarat State is the authority controlling the supply and sale of the non-postal stamps in the Vadodara district. The Collector being the administrative head of the district is in charge of the entire work relating to the collection of stamps duty. He has to regulate the sale of stamps and ensure proper collection of the stamp duty while there are Vendors licensed by the Assistant/Deputy Collector to sell these stamps to the public. The stamps are also being sold at the district treasury though the Assistant Accountant in-charge of the stamps section, who is acting as an *ex-officio* stamp Vendor. Stamps are also being sold at Sub-Treasuries in the talukas.

In the Vadodara district there are four depots located at (1) Vadodara (2) Dabhoi (3) Karjan and (4) Chhota Udepur. The Deputy Controller of Stamps, Nasik Road is directly supplying the required stock of the non-postal stamps to the main four depots mentioned above. These four depots are supplying the stamps to the other sub-depots under their jurisdiction respectively.

The powers of the refund of the value of unused, spoiled and obsolete stamps are being exercised by the Collector and Assistant/Deputy Collector and the Mamlatdar.

A Branch Sub-Depot which is located at every taluka headquarters is in direct charge of Sub-Treasury Officer. As per Government Notification No. GJM-M-87/STP/1068/54035-H, dated 13th January, 1969, all the Sub-Treasury Officers in the district have also been declared as 'Proper Officers' for the purpose of this Act under the rule 9 of the Bombay Stamps Rules, 1939. They are also empowered to affix the special adhesive stamps on the un-executed documents presented for stamping by the public.

There are 34 stamp vendors in the district. The non-judicial stamps of the value above Rs. 500 and court fee above Rs. 125 are being sold directly to the public by the Treasury and the Sub-Treasuries. Stamps below these denominations are being sold by the authorised licensed stamp vendors.

The total income realised from the sale of stamps in the district in the year 1971-72 was Rs. 43,68,085.03 for non-judicial stamps, and Rs. 13,44,693.62 for judicial stamps. The vendors were allowed a small discount which in the year 1971-72 amounted to Rs. 35,015.97 for non-judicial stamps and Rs. 29,766.08 for judicial stamps.

OTHER SOURCES OF INCOME

In order to meet the continuously growing expenditure on developmental activities, the State and Central Governments have to augment their financial resources by tapping additional sources of revenue. Apart from income from land revenue and other cesses, there are other additional sources. These are Income-tax, Sales-tax, Taxes on Motor Vehicles, State Excise, Central Excise, etc.

Of all these taxes sales tax has remained the main stay of State resources and will progressively remain so in the coming years. The revenue from the sales tax for the whole State was nearly Rs. 87 crores in 1972-73. These are briefly examined below. They play important part in resource mobilisation.

GENERAL SALES TAX

The Bombay Sales Tax Act, 1959 was adapted and modified by the Gujarat Adaptation of Laws (State and concurrent subjects) Order, 1960 and extended to all the districts of the State as per Section 88 of the Bombay Reorganisation Act, 1960. Several amendments were made to this Act relating to imposition of tax on kerosene, increasing the rate of tax on certain items, levy of purchase tax on sugar-cane, extending the levy of sales tax on certain goods, etc. This Act with the amendments, as made from time to time, remained in force upto 5th May, 1970. It was repealed by the Gujarat Sales Tax Act, 1969 which came into effect from 6th May, 1970. The system of taxation under the Bombay Sales Act, 1959 was a composite system combining first point tax to be paid by manufacturers, processors and importers with general sales tax to be paid at the last wholesale or semi-wholesale stage and a retailer turnover tax at the retail stage.

In June, 1967 Government constituted a Sales Tax Inquiry Committee under the Chairmanship of Shri Maldevji Odedra to make recommendations

on (a) the system and the rationalisation of the structure of sales tax ; (b) simplification of the procedure ; (c) measures to be taken for removing the hardships to dealers ; and (d) improvement in the quality of the administrative system and personnel. While making the recommendations, the Committee was required to give due regard to (a) the revenue requirements of the State and (b) control of avoidance and evasion of tax. The Committee submitted its report in June, 1968 and the present Sales Tax Act is based mainly on the recommendations of this Committee. The system recommended by the Odedra Committee is in essence similar to the system prevalent under the Bombay Sales Tax Act, 1959. Thus the system of taxation recommended was to levy tax (i) at a single point first stage, that is, sales tax on goods covered by Schedule II Part A ; (ii) at a single point last stage, that is, general sales tax on goods covered by the Schedule II—Part B and (iii) tax at both the stages that is, first stage sales tax and last stage general sales tax on goods specified in Schedule III. The goods specified in Schedule I to the Act are exempted from levy of tax on sale or purchase.

An additional tax on the sale or purchase of goods liable to tax under the aforesaid Act, viz., Gujarat Sales Tax Act, 1969 has been levied at the rate of 2 per cent on the tax payable by the dealer.

Sales Tax on Motor Spirit

The tax on the sale of motor spirit is levied under the Bombay Sales of Motor Spirit Taxation Act, 1958, which was adapted by the Gujarat Adaptation of Laws (State and concurrent subjects) Order, 1969 and extended to all the districts of the State as per section 38 of the Bombay Reorganisation Act, 1960. Section 5 of this Act specifies that there shall be levied and collected a tax on the sale of Motor Spirit at such rate or rates (not exceeding 20 per cent of the value of the sales of such motor spirit) as may be prescribed and that different rates may be prescribed for different kinds of motor spirit. Accordingly, under Rule 14 of the Bombay Sales of Motor Spirit Taxation Rules, the tax has been levied on various kinds of motor spirit at the following rates :

<i>Kinds of Motor Spirit</i>	<i>Rates of Tax</i>
1 High speed diesel oil	8 paise per litre
2 Vapourising oil	3 paise per litre
3 Aviation motor spirit	7 paise per litre
4 Any other kind of motor spirit	18 paise per litre

Central Sales Tax

The Central Sales Tax Act, 1956 provides for the levy, collection and distribution and distribution of tax on sales of goods in the course of inter-State trade or commerce. Under Section 8 of this Act, the rate of Central Sales Tax is 3 per cent if the goods are sold to the Government or to a registered dealer on a prescribed certificate. Similarly, the rate of Central Sales Tax is 3 per cent or the rate prevailing under the general Sales Tax law of the State on the sales of declared goods as specified under section 14 of this Act. The rate of Central Sales Tax on sales of goods, other than declared goods, in the course of inter-State trade or commerce is 10 per cent or the rate applicable to the sale or purchase of such goods inside the State, whichever is higher when such sales are made without any certificate.

Administrative Set-up

Divisional head of the whole Vadodara Division is Deputy Commissioner of Sales Tax. His office is situated at Vadodara.

The range office of this division is also located at Vadodara having jurisdiction over districts of Vadodara, Panch Mahals and Bharuch. The head of the range office is Assistant Commissioner of Sales Tax (A. C. A.) Range IV Vadodara.

There is a separate unit of enforcement dealing with the work of vigilance, survey, surprise visits and search and seizure of books of account.

There is also a separate unit of registration, returns and recovery work for performing the work of registration of issue of documents, chalans and receipt of returns/declarations and enforcing recovery of assessed dues and also of dues not paid with return/declarations. This unit is also pursuing the work regarding penal action against those dealers who are defaulters in paying the tax alongwith returns/declarations.

There are also other offices of Sales Tax Officers. These offices are carrying on assessment work.

During the financial year 1972-73 the total collection of Sales Tax under the Gujarat Sales Tax Act, 1969 in the district amounted to Rs. 4,70,03,084 and under the Central Sales Tax Act Rs. 1,98,45,633. The number of registered dealers was 7,582 under Gujarat Sales Tax Act, 1969 and 4,501 under the Central Sales Tax Act. Dealers holding documents were in all 631.

TAX ON MOTOR VEHICLES

The tax on motor vehicles constitutes one of the important sources of revenue. The receipts from taxes under Motor Vehicle Taxation Acts constitute approximately 13 per cent of the total tax receipts of the State. The Motor Vehicles Department is responsible for proper administration of the Motor Vehicles Act, 1939 and rules made thereunder. It also collects taxes on Motor Vehicles, Passengers and Goods carried by road under :

- (1) The Bombay Motor Vehicles Tax Act, 1958.
- (2) The Bombay Motor Vehicles (Taxation of Passengers) Act, 1958 and
- (3) The Gujarat Carriage of Goods Taxation Act, 1962.

It also carries out in general the duties and responsibilities cast on it under the provisions of the said Acts and rules made thereunder.

Administrative Set-up

The Department is headed by the Director of Transport with headquarters at Ahmadabad. As per reorganisation of the Department the State is divided into four regions each being headed by a Regional Transport offices in the State, viz., Ahmadabad, Vadodara, Rajkot and Surat. In addition to these offices there are seven sub-regional offices one each at Mahesana, Nadiad, Valsad, Bhavnagar, Bhuj, Jamnagar and Junagadh. The Vadodara district is under Vadodara region which comprises the revenue districts of Vadodara, Kheda, Panch Mahals and Bharuch.

Tax on Passengers

A tax on passengers at a rate equal to twenty five per cent of the inclusive amount of fares payable to the operator of a stage carriage has been levied under section 3 of the Bombay Motor Vehicles (Taxation of Passengers) Act, 1958. In the Municipal areas defined by the Act, the rate of tax is one per cent of the inclusive amount of fares payable to the operator. In order to raise additional resources to be utilised exclusively for the relief of Bangla Desh refugees, an additional tax on passengers carried by stage carriages other than those plying in the areas and on the routes specified in the first proviso to sub-section (i) of section (3) of the Bombay Motor Vehicles (Taxation of Passengers) Act, 1958 (as in force in the State of Gujarat) had been levied with effect from 1st December 1971, so as to yield a return of 5 per cent on the tickets of the

value of rupee one and above under the Bombay Motor Vehicles (Taxation of Passengers) (Gujarat Amendment) Act, 1971. The additional amount realised on this account was being passed on to the Government of India. This levy remained in force till the end of March, 1973.

Tax on Goods

The Gujarat Carriage of Goods Taxation Act, 1962 makes all goods carried by road in motor vehicles, liable to the payment of a tax. The rates of tax for goods carried in public goods vehicles and private goods vehicles prescribed under section 3 of the Act are as follows :

<i>Description</i>	<i>Rate of Tax</i>
(a) Goods carried in a public goods vehicles.	3 per cent of the freight charged or chargeable for their carriage.
(b) Goods carried in a private goods vehicle.	4/10th of a naya paise per metric tonne per kilometre.

Under sub-section 1A of section 12 of the Act, every operator of a goods carriage is allowed an option of lump sum payment in lieu of the tax leviable under the Act. The rates of lump sum payment in force, as prescribed by Government *vide* Health and Industries Department Notification No. GTA-1362-459-T, dated 8th November, 1962 are as under :

1 Public good vehicles of which the pay load does not exceed 2 metric tonnes.	Rs. 20 or the produce obtained by multiplying the pay load in metric tonnes by Rs. 22, whichever is less.
2 Private goods vehicles of which the pay load does not exceed 2 metric tonnes.	Rs. 20 or the product obtained by multiplying the pay load in metric tonnes by Rs. 15 whichever is less.
3 Public goods vehicles or private goods vehicles of which the pay load exceed 2 metric tonnes but does not exceed 6 metric tonnes.	Rs. 20 plus Rs. 10 per metric tonne or part thereof of the pay load in excess of 2 metric tonnes.
4 Public goods vehicles or private goods vehicles of which the pay load exceeds metric tonnes.	Rs. 60 plus Rs. 7.50 per metric tonne or part thereof of the pay load in excess of 6 metric tonnes.

The collection of revenue realised for the Vadodara office for the revenue districts of Vadodara, Pancha Mahals and Bharuch for the years 1969-70, 1970-71 and 1971-72 are as shown below :

Sl. No.	Name of the Act	Amount collected during the year (Rs. in lakhs)		
		1969-70	1970-71	1971-72
1	2	3	4	5
1	The Indian Motor Vehicles Act, 1939	4.60	5.96	6.25
2	The Bombay Motor Vehicles Tax Act, 1958	68.52	76.92	82.22
3	The Bombay Motor Vehicles (Taxation of Passengers) Act, 1958	00.73	00.96	00.99
4	The Gujarat Carriage of Goods Taxation Act, 1952	14.51	16.49	17.97
Total		88.36	100.33	107.43

STATE EXCISE

In view of the prohibition policy of the Government of Gujarat, excise or *abkari* revenue is not an important source of income. The Prohibition and Excise Department in the district is responsible for the administration of Bombay Prohibition Act, 1949 and other Acts mentioned below. The Department is headed by the Director of Prohibition and Excise, Gujarat State, Ahmadabad. The Superintendent of Prohibition and Excise is the officer incharge of the administration of the department in Vadodara district. He is vested with various powers under the Bombay Prohibition Act, 1949, the Dangerous Drugs Act, 1930, the Bombay Opium Smoking Act, 1936, the Bombay Drugs (Control) Act, 1959, the Spirituous Preparations (Inter-State Trade and Commerce) Control Act, 1955, and the Medicinal and Toilet Preparations (Excise Duties) Act, 1955. He has under him 4 Inspectors of Prohibition and Excise and 13 Sub-Inspectors of Prohibition and Excise. The State Government levies duty on the following exciseable articles under section 105 of the Bombay Prohibition Act, 1949.

- (1) Any alcoholic preparation for human consumption.
- (2) Any intoxicating drug and hemp.
- (3) Opium.
- (4) Any other exciseable article as defined in clause (13) of the section 2 of the Bombay Prohibition Act, 1949.

In addition to the above articles, excise duty on medicinal and toilet preparations containing alcohol, Indian Hemp or other narcotic drug, opium,

or narcotic is levied under the Medicinal and Toilet Preparations (Excise Duties) Act, 1955, by the Central Government but collected by the Prohibition and Excise Department of the State and retained by the State Government. The total revenue realised from excise duty in the district for the last three years is shown below :

Year		Excise Revenue	
1970-71	..	Rs.	69,31,918
1971-72	..	Rs.	60,38,922
1972-73	..	Rs.	51,28,189

CENTRAL EXCISE

Division I

The Central Excise Department in Vadodara district is divided into two divisions. A part of the district is within the jurisdiction of Central Excise Division-I Vadodara. Division-I is headed by Assistant Collector Central Excise. Under him six ranges are placed which are stated below. Out of six ranges four ranges are headed by Superintendent, Central Excise and two ranges are headed by the Inspectors of Central Excise :

Sl. No.	Name of the range	Person in charge	Head-quarters of the range	No. of villages	Name of the taluka
1	2	3	4	5	6
1	Assessment Range I	Superintendent, Central Excise	Vadodara	Factories situated in the northern side of the city.	Vadodara
2	Assessment Range II	Superintendent, Central Excise	Vadodara	..	Vadodara
3	Bajwa	Superintendent, Central Excise	Bajwa	17	Vadodara
4	Savli	Superintendent, Central Excise	Savli	120	Savli
5	Ranoli	Inspector, Central Excise	Ranoli	10	Vadodara
6	Bhadarwa	Inspector, Central Excise	Bhadarwa	16	Savli
Total				163	

Division II

Major portion of Vadodara district falls in Central Excise Division II, Vadodara Division. Vadodara is headed by the Assistant Collector of Central Excise, under whom there are seven Ranges. All Ranges are placed under the Class II Superintendent. The details about these ranges are given below :

Sl. No.	Name of the Range	Person in Charge	Head-quarters of Range	No. of Villages	Name of the Taluka
1	Assessment Range I	Superintendent, Central Excise	Vadodara	86	Vadodara
2	Assessment Range II	Do.	Do.	4	Do.
3	Assessment Range III, Vadodara.	Do.	Do.	9	Do.
4	Gujarat State Fertilizers Co.	Superintendent, Central Excise	G.S.F.C.	9	Vadodara
5	Gujarat Refinery	Do.	Jawahar-nagar.	..	Vadodara
6	Padra .. Out sector Sewasi	Superintendent Inspector, Sewasi	Padra Padra	96	Padra
7	Dabhoi	Superintendent	Dabhoi	1,360	Dabhoi
8	Out Sector				
1.	Karjan	Inspector	Karjan		Karjan
2.	Chhotu-Udepur	Do.	Chhotu-Udepur		Chhotu-Udepur
3.	Sankheda-Bahadarpur	Do.	Sankheda-Bahadarpur		Sankheda-Bahadarpur

The Central Excise Department in this district deals with the excise duty levied on tobacco and other commodities. The main commodities are fertilizer, motor spirit, kerosene, cigarettes, R. D. oil, diesel oil, furnace oil, petroleum products, woollen fabrics, woollen yarn, rolling bearings, aluminium, menthol, s. d. dyes, s. o. products, gases, plastics, cotton yarn, cotton fabrics, motor vehicles, motor vehicles parts, photographic camera, etc.

The total revenue realised during the year 1972-73 in both the Divisions was Rs. 91,18,27,249.00.

INCOME-TAX

The beginning of the income-tax in Vadodara State was made during the time former Baroda State, in 1896 by a notification no. of 33, dated 8th April, 1896 published in the Adhya Patrika (Government Gazette). This notification abolished old taxes such as *chandla patti*, *katla chhapat*, *zampal jamana* and *chula vero* abolished and one tax under the *ayapat vero* was levied upon all the people of Padra town. In 1899 it was extended to all the talukas.

This is one of the most important Central Government taxes at present. For the administration of tax in the Gujarat State, there is a Commissioner of Income-tax headquartered at Ahmadabad. Under him, there are Inspecting Assistant Commissioners of Income-tax. The Vadodara district is placed in charge of the Inspecting Assistant Commissioner of Income-tax stationed at Vadodara. Under him, there are 17 Income-tax Officers and 12 Income-tax Inspectors. Besides there are 3 Supervisors, 7 Head Clerks, 53 Upper Division Clerks and 29 Lower Division Clerks, etc.

The details of the realisation of Income-tax from Vadodara district for the year 1972-73 are as under :

	Rs.	P.
Gross collection of Income-tax	6,98,14,088-43	
Less-Refunds	51,54,346-76	
Net collection of Income-tax	6,46,59,571-67	

CHAPTER XII

LAW AND ORDER AND JUSTICE

Police

INCIDENCE OF CRIME

The following statement shows the incidence of crime committed in the district between the years 1970 and 1972. It will appear that the crime graph has risen from 53,599 in 1970 to 70,298 in 1972. Among the crimes, substantial rise is noticed under those committed under the special and other local laws as the figure of 50,331 has shot up to 66,616 during the period. Those relating to person and property have risen from 2,344 in 1970 to 2,565 in 1972. During the period under review, it is significant that not a single offence was reported (i) against the State, (ii) the army and navy, (iii) public servants, (iv) coins, (v) stamps, (vi) weights and measures, (vii) religion, (viii) unnatural offence, (ix) fraudulent deeds, and (x) breach of contract.

STATEMENT XII-1

Incidence of Crime

Sl. No. 1	Description of Offence 2	Number of Offence	
		1970 3	1972 4
1	Against the State	..	..
2	Relating to the Army and Navy	..	..
3	Public tranquillity	101	33
4	Relating to Public Servants.	..	..
5	Contempt of the lawful authority of Public Servant	17	84
6	False evidence	7	..
7	Relating to coins	..	..
8	Relating to Government stamps	..	..
9	Relating to weights and measures	..	..
10	Affecting public health, safety, convenience, decency	178	368

STATEMENT XII-1—contd.

Sl. No.	Description of Offence	Number of Offence	
		1970	1972
1	2	3	4
11	Relating to religion	..	..
12	Affecting life	201	239
13	Causing of miscarriage, etc.	1	2
14	Hurt	1,010	1,050
15	Wrongful restraint and confinement	15	66
16	Criminal force	85	137
17	Kidnapping, etc.	29	14
18	Rape	3	3
19	Unnatural offence	..	..
20	Theft	558	629
21	Extortion	1	9
22	Robbery	27	18
23	Criminal misappropriation	41	16
24	Breach of trust	131	67
25	Stolen property	21	45
26	Cheating	191	270
27	Fraudulent deeds, etc.	..	..
28	Mischief	107	61
29	Criminal trespass	281	309
30	Offences relating to documents, trade or property marks	15	14
31	Breach of Contract	..	..
32	Offences relating to marriage	117	140
33	Defamation	44	11
34	Criminal intimidation, insult and annoyance	57	97
35	Under special and other local laws	50,331	66,616
Total		53,599	70,298

Source :
District and Sessions Judge, Vadodara.

POLICE-VADODARA STATE

Introduction

The history in brief of the Police administration in Vadodara State is as under :

(1) Before 1860

Prior to 1861, the *izara* system prevailed and the *izardars* exercised both magisterial and police functions. For each village there were the village watchmen called *vartanias* or *rakhas*, who were responsible for the safety of the village and protection of travellers. The village *mukhis* or *patels* were responsible to the *thandars*. Even though they were revenue officers also, they were mainly concerned with the police duties. They detected criminals and disposed of such cases within their powers, and committed others to the *vahivatdar's* court. Although, the powers of the *thandar* and the *vahivatdar* were defined by their *kalambandis*, yet these officers exercised great powers in criminal matters. Even in grave offences, they held inquiries, sometimes with permission, and awarded punishments according to their powers. They received cash benefits as perquisites.

In Vadodara city, there were the *chautras* or *chabutras* which were in charge of the *izardars*, who exercised criminal and police powers. The *fauzdari* sepoy assisted the *izardars* in detecting thefts and other crimes and in keeping order during the day. But the *killedar* was responsible for keeping a watch during the night. He placed *sibandis* in charge of the city. The *izardars* and the *killedars* generally inquired into all cases primarily, but committed such cases as were beyond their powers to the court. Under special instructions, however, or with the permission of the Dewan or the Maharaja, the *izardars* often decided serious cases requiring higher punishments.

(2) The Period from 1860-1870

During this period, the *chautra* and the *izara* systems were abolished and the *huzur fauzdari* court took cognizance of all offences which were beyond the powers of the *mahal vahivatdars*. Murders and some other grave offences were inquired into by the *huzur fauzdari* court; but the punishment was awarded by the Diwan or the Maharaja. All the officers from the *huzur fauzdari* down to the police *patel* were magistrates and police officers at the same time. They not only tried and decided criminal cases, but also conducted preliminary inquiries and traced out offenders. The detection and punishment of crime devolved upon the same set of officers.

The most important change introduced in 1860, was the appointment of a *fauzdari aval karkun* by the *huzur*. He functioned under the

vahivatdar, and carried out magisterial and police work. He carried out the preliminary work in criminal cases, which were decided by the *vahivatdar*. The *aval karkun* was empowered to make a separate representation to the Maharaja, in cases where he disagreed with the *vahivatdar*.

Police Officers and Magistrates—In the hierarchy of police officers, the lowest was the village *patel* or *mukhi*. He was responsible for the safety of the village and his powers were limited to a fine of one rupee and four annas and in awarding twenty four hours' imprisonment. The *thandar* was in charge of a group of villages and generally exercised powers of inflicting a fine of Rs. five, or, in some cases, Rs. 10 and awarding eight days' imprisonment. Besides dealing with small offences, the *thandars* conducted preliminary inquiries before committing the cases to the *vahivatdar*. The *vahivatdar's* powers were limited to three month's imprisonment and Rs. 25 fine. But in cases requiring a higher punishment, not exceeding six month's imprisonment and a fine of Rs. 50, the *vahivatdars* held preliminary inquiries and submitted them with their opinion for decision to the *huzur fauzdari*. In cases requiring a higher punishment beyond six month's imprisonment and a fine of Rs. 50, the *vahivatdar* held preliminary inquiries, but submitted them, without stating his opinion, to the *sar fauzdar*, who held further inquiries if necessary and finally submitted the matter with his opinion, to the *huzur fauzdari*. In the last class of cases, therefore, the *vahivatdars* were regarded merely as policy officers. The *sar fauzdars* were not invested with distinct criminal powers, and were appointed merely to obviate inconvenience to people residing in distant parts of the State.

Huzur Fauzdari Court—All cases above the cognizance of the *vahivatdars* were dealt with by the *huzur fauzdari* court, whose powers extended to one year's imprisonment and Rs. 100 fine. Though the court was empowered to award the above punishment without consulting the Dewan, generally he was consulted or was at least kept informed about all pending cases. The result was that the *huzur fauzdari* was able to dispose of all cases.

(3) The Period from 1870-1875

During this period, at about the close of Maharaja Malharrao's reign, classes of magistrates were formed and their powers were defined according to the extent of the *mahal*. The powers of a first class *vahivatdar* were fixed at Rs. 100 fine and six months' imprisonment.

(4) The Period from 1875 and After

Raja Sir T. Madhavrao introduced many changes in the administration in 1875. Magisterial and police functions were separated. A *police naib suba* was appointed for each district. Further, *Suba* and Police Inspectors for sub-divisions, *fauzdars* for talukas and *naib fauzdars* for *tappas* or

thanas were also appointed. A Police Superintendent was specially appointed for the city. He had eight inspectors under him, each having the status of a *fauzdar*. The village police remained as before. The *thandars* were supplanted by *naib fauzdars*. Measures to constitute a regular police force on modern lines for the Vadodara city were made by Maharaja Khanderao but Sir. T. Madhavrao created this force as a measure of reforms in the administration.

The newly organised police force was provided with uniforms at Government cost from August 1907. The head of the Police, who was called Huzur Assistant, Police Department, began to be styled Police Commissioner from 1907.

Police Nibandha—The first Police Act framed in 1881 was subsequently revised and brought up-to-date in 1898. It defined the powers and duties of the head of the Police, the District Subas, the Police Naib Subas and other Police Officers. Provision was also made for entertaining punitive police for maintaining law and order in turbulent localities.

Reforms introduced in the Police Department include opening of Police Schools at all the district headquarter places for the training of recruits. A Police Bank for providing small loans to the members of the force at a low rate of interest was organised. Arrangements for better registration and investigation of crime were also made. Excesses of Police officers as regards confessions of crime were severely dealt with. An effective system of patrol was devised for the prevention of crime. A small police drill book embodying the latest improvements was published. An endeavour was made to keep the force vigilant and efficient by supplying information about criminal tribes and dangerous gangs. The emoluments paid to the police inclusive of the rates for travelling on duty were revised so as to attract better recruits. Reading rooms and libraries were established at the district headquarters. Police sports were held every year in all the districts as a recreation measure. Arrangements were made between the Police Naib Subas, Vadodara and the Superintendents of Police, Kheda and Bharuch to exchange police officers to each other's jurisdiction with a view to study the antecedents and characters of suspects. Further arrangements for holding conferences between District Police Naib Suba and the Superintendents of Police of neighbouring British districts and Agencies for control of crimes and bringing offenders to book were also made.

In 1914-15 Vadodara joined the convention for securing efficient co-operation among the States of Kathiawad in the suppression of dacoities and other serious crimes, on terms of reciprocity, as suggested by the Agent to the Governor in Kathiawad.¹

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 288-95.

Functions of the Police

The primary functions of the police are prevention and detection of crime, prosecution of criminals, maintenance of law and order, apprehension of offenders, escorting and guarding of prisoners, protection of Government treasuries, and private or public property of which they may be placed in charge. Besides these, they have various other duties to perform, such as control of traffic, service of summons and warrants in criminal cases, destruction of stray dogs, inspection of shops selling explosives and poisonous drugs and extinguishment of fires. Other miscellaneous duties, which fall upon the Police Department are: verification of character, inquiries about passport, *bandobast* at fairs and festivals and at centres of examinations and surveillance of criminals and habitual offenders, etc. These functions are incorporated in the Bombay Police Act, 1951, as adopted and applied to the Gujarat State.

*PRESENT SET-UP**Police Divisions*

For the purpose of administration, the Gujarat State is divided into three Police Ranges, Vadodara, Gandhinagar and Rajkot, each under a Deputy Inspector General of Police. This district has been placed in the Police Range, Vadodara. The set-up of the police force is divided into Vadodara city and Vadodara District (Rural), each in charge of a District Superintendent of Police. The city establishment was bifurcated from the year 1970. The District Magistrate has control over the District Superintendent of Police and police force of the district. He decides the questions of policy and matters relating to the administration of law within the district, but does not interfere with such matters as recruitment, internal economy and organisation of the District force. The District Superintendent of Police is the executive head of the police force in the district. His primary duties are to keep the force under his control properly trained, efficient and contented and to ensure by constant supervision that the prevention, detection and investigation of crimes in the district are properly and efficiently carried out by the police force.

The general pattern of the police administration in the district is as follows. At the district level, there is District Superintendent of Police, who is responsible for maintenance of law and order in the district. The Vadodara district is divided into two subdivisions, viz., Dabhoi and Chhota Udepur. Each subdivision is under the charge of a Deputy Superintendent of Police, who is responsible for all crime work as also for the efficiency and discipline of the officers and men in his subdivision. He works under the general orders of the District Superintendent of Police. These officers have also to carry out detailed inspection of police stations and outposts in their charge at regular intervals.

For the purpose of efficient supervision of crime work, the district has been divided into two circles, each under the charge of a Circle Inspector of Police. He is responsible entirely for crime work and surveillance of bad characters and gangs in his circle. He also supervises and co-ordinates the crime work of the different police stations within the circle.

At the district headquarters, the District Superintendent of Police is assisted by an Inspector who is designated the Home Inspector of Police and works as personal assistant to the District Superintendent of Police. He supervises the work of the office and the headquarters during the former's absence.

There is a Sub-Inspector each for the local crime branch and local intelligence branch in this district. There are 22 police stations and 33 outposts which are under the charge of Police Sub-Inspectors and Head Constables respectively. The posting of additional Police Sub-Inspector at a police station depends upon the crime position and the area of the Police Station.

Each police station is provided with a sufficient number of Head Constables and Constables. The Head Constables are empowered to register and investigate the crimes reported at the police station. Thus they work as Police Station Officers. Each police station has one writer Head Constable and one writer Constable to do the office work at the police stations. The location of police stations and outposts is shown in Statement XII-2 appended to the chapter.

The sanctioned strength of the police establishment for the district was 1,321 at the end of the year 1973. Its composition was follows: District Superintendent of Police 1, Deputy Superintendents of Police 2, Police Inspectors (including Home Inspector of Police) 3, Police Sub-Inspectors (including 5 leave and training reserve) 40, Police Prosecutors 5, Unarmed Head Constables 181, Armed Head Constables 112, Unarmed Constables 465, Armed Constables 504, Head Wireless Operator 1, and Wireless Operators 7.

The sanctioned strength of the police establishment for the Vadodara City was 869 on 31st March, 1974. Its composition was as follows: District Superintendent of Police 1, Sub-Divisional Police Officer 1, Police Inspectors 6, Police Sub-Inspectors 48, Unarmed Head Constables 136, Unarmed Constables 596, Armed Head Constables 13, and Armed Constables 68.

The expenditure on the police establishment in the district for the year 1973-74 amounted to Rs. 50.13 200. As regards the ratio of the police to the area and population, there was one policeman for an area of 2.36 sq. km., and population of 1,198 persons. Among the officers and men shown above,

the percentage of literate officers was 100 per cent. The district has a fleet of 26 police vehicles. Out of the total strength of policemen in the district, 1,043 were housed in Government quarters. Similarly 32 officers were provided with Government quarters. A police mess is run at the district head quarters to cater to the food requirements of policemen.

The Railway Police

The railway police unit in the Vadodara district is headed by the Superintendent of Police, Western Railway, with headquarters at Vadodara. He is assisted by 307 other staff comprising the Police Inspectors, Police Sub-Inspectors, Unarmed Head Constables, Unarmed Police Constables, armed Police Sub-Inspectors, armed Head Constables and armed Police Constables. Further, the railway police establishment is spread over, Miyagam and Samlaya.

Anti-corruption and Prohibition

With a view to eradicating the evil of corruption and for a more effective implementation of the prohibition policy of Government, the anti-corruption force has been set-up under the Director of Anti-corruption Bureau, Ahmadabad. The sanctioned strength of police force engaged in this work for the Vadodara district is one Police Sub-Inspector, four Unarmed Head Constables, four Police Constables, one Armed Head Constable and four Armed Police Constables.

Home Guards The Home Guards organisation was started in the year 1950 at Vadodara. The activities are at present extended to seventeen units and sub-units such as Vadodara city, Dabhoi, Sankheda, Chhota Udepur, Savli, Padra, Bahadarpur, Vejpur, Varnama, Vaghodia, Sinor, Karjan, Jabugam, Bajwa, Bhatpur, Kayavarohan (Karvan) and Chandod for conducting home guards activities. Its cadets are imparted training in squad drill, lathi drill, arms drill, firing, use of bayonet and physical exercises. When called on duty, they enjoy the same powers and protection as those of the members of the police force. Their functions consist mainly of guarding public buildings, patrolling, prevention of crime and assisting the police in their duties.

Besides, they are called on duty for *bandobast* during emergency and on other occasions, when their need arises and their services thought essential by the District Superintendent of Police for maintaining law and order.

The number of Home Guards cadets working in the district was 2,625 at the end of the year 1973. Of these, 2,303 were males and 322 females. In the year 1973-74 the expenditure incurred for home guards amounted to Rs. 1.86 lakhs.

Kotwal Scheme

The Kotwal scheme has been adopted since May, 1962. Kotwal is a Government servant appointed at the village by the Mamlatdar for performing duties prescribed from time to time by Government or by any officer authorised by Government in this behalf. The number of kotwals to be appointed in each village is determined by the Collector in accordance with the scale and rules prescribed. After the introduction of the Panchayati Raj, they work under the Panchayat. The appointment of a kotwal is for the period upto the 1st April, following the date of appointment. Though it is purely temporary, it is renewed from year to year so long as the holder of the post continues to be fit to hold it. However, his service does not qualify him for leave, gratuity or pension. In February every year, the Talati-cum-Mantri of the village submits a report on the work of the kotwal to the Mamlatdar in the form prescribed. He sends the original direct to the Mamlatdar and forwards the duplicate to him through the Sub-Inspector of Police. A kotwal is required to give security of Rs. 100 and furnish two sureties in the prescribed form, as he has to handle Government money. The Revenue Patel or the Revenue and Police Patel, if there be no Revenue Patel, is primarily responsible for the general supervision and control over the work of the kotwal of his village. The number of kotwals in the district was 541 in the year 1972-73.

Village Police

Under the Bombay Village Police Act, 1967, the control over the village police is vested in the District Magistrate, who may delegate any of his powers to the District Superintendent of Police. Each village generally has a Police Patel, who is required to collect information regarding suspicious characters and send it to the police station. He has to keep a strict watch over the movements of notorious characters under surveillance of the police and to give all the information he possesses about what is happening in the village, when the patrolling policemen visit the village. The number of village police was 1,253 in the district in the year 1972-73.

Gram Rakshak Dal

Besides village police, another organisation established by the Government for the protection of the rural areas is the Gram Rakshak Dal. It is a body of men primarily organised for the defence of the village against dacoits, and anti-social elements and for protection of person and property. The Gram Rakshak Dal organisation for this district is functioning under the District Superintendent of Police. During the time of emergency, the Gram Rakshak Dal functions as an adjunct to and works in close co-operation with the police in maintaining internal security. Every person between the ages 20 and 50 years residing in a village, possessing good

health and character, good antecedents and civic sense, and educated upto third standard vernacular, is eligible for enrolment as a member. The District Superintendent of Police is the appointing authority and the training is imparted by the Police Head Constables appointed specially for the purpose. Every member of the Dal enjoys the powers, privileges and immunities of a police officer when called for duty. The members are given training in elementary squad drill, *lathi* drill, physical exercise, use of rifle, arms drill, organising *naka bandhis* in the village, combating of dacoits and robbers and giving first aid to the injured. In deserving cases, members are supplied with arms. They are also encouraged to do night patrolling in their respective villages, both on their own as well as with the police and are also mobilised when the village faces dangers like floods, fire, other natural calamities or is attacked by dacoits, robbers, etc.

The Gram Rakshak Dal organisation in this district consists of one Police Sub-Inspector, eleven Police Head Constables, nine Training Instructors, one Hon. Gram Rakshak Dal Officer and 12 Hon. Taluka Gram Rakshak Dal Officers.

At the end of the year 1973, the Gram Rakshak Dals were organised in 1,646 villages and had a membership of 34,961 persons. There were 1,646 *naiks* and an equal number of *up-naiks*. Members of the Dal who perform duty outside their villages are paid daily allowance at the rate of Rs. 2-50 per day each. Hon. District Gram Rakshak Dal Officers are paid Rs. 150 per month while the Hon. Taluka Gram Rakshak Dal Officers are paid Rs. 75 per month.

Mahila Gram Rakshak Dal

Similar organisation for women was started in the wake of the Pakistani aggression in 1965. The main objective of organising a separate wing for women was to inculcate in them a spirit of defence and to induce them to take part in protecting life and property in the village. During natural calamities such as flood, fire, earthquakes, etc., they are required to give first aid to the injured and prepare food for the affected. Help in saving women from harassment by the anti-social elements is one of the main functions of the Mahila Gram Rakshak Dal. Any woman between the ages of 18 and 50 years, possessing good health, character and educated upto fourth standard, is eligible for enrolment as a member. The District Superintendent of Police is the appointing authority. In this work, he is assisted by the honorary women organisers of the district. In this district at the end of the year, 1973, the Mahila Gram Rakshak Dals were organised in 22 villages and had a membership of 553, inclusive of 22 *naiks* and 22 *up-naiks*.

JAILS

Organisation

Prisons in Gujarat State have been established under the Prisons Act, 1894. The Inspector General of Prisons, Gujarat State, Ahmadabad, is the head of the Jail Department and exercises general control and superintendence over all the prisons, jails and the headquarter sub-jails in the State. The Jail Department functions under the Home Department at the State level.

The prison at Vadodara is one of the two central prisons of the State. It was constructed in the year 1937 during the Vadodara State regime. The over all charge of this prison is held by the Superintendent, who is also designated the Deputy Inspector General of Prisons of the Southern range comprising the Kheda, Vadodara, Panch Mahals, Bharuch, Surat and Valsad districts. He is assisted by the jailors, and clerical and technical staff. Prisoners from these districts with over 6 months sentence are transferred to the central prison except in case of Surat, where prisoners up to two years imprisonment are kept.

Hardened and incorrigible criminals are transferred to the special prison at Bhuj, whereas the prisoners upto 23 years of age with sentence over one month are transferred to the District Prison at Junagadh.

There is a women's section in this prison, where women prisoners from the whole of the State with sentence above one month are kept. One woman jailor is in charge of this section. She is assisted by two lady matrons.

Besides the central prison at Vadodara, there is one sub-jail at Chhota Udepur and eight judicial lock-ups under the revenue department at other taluka/mahal headquarters in the district, viz., Karjan, Padra, Savli, Vaghodia, Dabhoi, Sankheda, Tilakwada and Sinor. The Mamlatdar of the taluka is designated the Superintendent of Taluka Sub-Jail and a clerk of his office, works as Jailor. The capacity of the central prison is 795 prisoners.

The total number of prisoners in the central jail on 1st November, 1973 was as under :

	Males	Females
Convicted		
or		
under-trials	669	54

The Jail hospital has a capacity to accommodate 72 prisoners. Class I and II detainees are also kept in this prison. However, habitual prisoners are kept in the district prison at Bhavnagar.

Prison Discipline

The following staff helps the Superintendent in maintaining discipline in the prison :

(1) Jailors	7
(2) Subedar-Jamadars	6
(3) Havalgars	8
(4) Workers	6
(5) Sepoys	71

The guarding of the prison outside the walls is done by a contingent of the District Police and the prisoners are escorted outside the jail to the courts by this force.

Generally prisoners behave in a disciplined manner in the jail. However, those found guilty of breaches of discipline are awarded various types of punishments such as (1) cut in remission period, (2) separate confinement, (3) stoppage of canteen facilities, (4) standing hand cuffs, etc.

There is a full fledged canteen in this prison, which supplies articles to prisoners at cost price. Prisoners work in the jail factories during the period of their confinements and receive wages for the work done. They are allowed to purchase the necessary articles from the canteen.

The following industries are well established in this prison and the produce is supplied to the Government Departments and the general public :

(i) textile industry with powerlooms and handloom textiles with automatic looms, (ii) Manufacture of furniture articles, (iii) dyeing work, (iv) laundry work, (v) leather work, i. e., of making *chappals* for the State police force, and (vi) tailoring work.

Uniforms for the police, postal and medical departments are stitched in this prison. The value of production during the year 1972 was Rs. 4.96 lakhs. The profit amounted to Rs. 1.33 lakhs.

Cultivation is also attached to this prison for which about 24 acres of land have been earmarked. Prisoners are taught new methods for the

production of cereals, vegetables, etc. Vegetables from the garden are used in preparation of food for the prisoners and are also sold to the public in the city.

Welfare of Prisoners

Following activities are undertaken for the welfare of prisoners. A dispensary is attached to the prison and has the following staff. (1) Visiting Medical Officer, (2) Medical Officers, (2) and (3) Nursing orderlies.

All medical facilities are supplied to prisoners. In cases of emergency, their cases are referred to the General Hospital.

One teacher is attached to the jail, to prepare prisoners for the school examinations. Prisoners are allowed to appear in such examinations.

National Service Scheme was extended to this jail in 1972-73 for imparting education to the adult illiterate prisoners.

Students from the Faculty of Social Welfare of the M. S. University, Vadodara attend the jail and carry out research work. This jail is one of the agencies for the university students to conduct field research in human behaviourism.

A separate section is kept for cultural training and programmes. Prisoners perform drama, dances and musical orchestra in jail as well as outside the city and take part in (State level) functions held on the occasions of Independence Day and the Republic Day, State's Anniversary Day (1st May) etc.

The prisoners are treated with compassion on reformation grounds. One Liaison Officer and Probation Officers counsel the prisoners in their personal problems in jail as well as at home after release. Prisoners are released on furloughs every year by granting them earned leave and in case of need are also released on parole.

They are provided with the books, journals, newspapers, etc., at Government cost and are allowed to keep books at their own cost also. There is a library in the prison, which has about 13,000 books.

1. *National Service Scheme* : A centre for adult education in the Central jail at Vadodara was established in 1972-73 by the volunteers of the literacy group of the M. S. University of Baroda. National Service Scheme under the auspices of the M. S. University of Baroda. The Scheme helped to educate the illiterate prisoners in the jail. The classes were held in the evening between 4.30 and 5.30 P.M. In the year 1972-73, 30 male and 10 female volunteers participated in the programme and about 70 to 72 male prisoners and 6 female prisoners took advantage of the scheme. The results of the Adult Education Standard-I Examination conducted by the Government were very encouraging. This programme was continued in 1973-74 also. As a part of the celebration of the International Literacy Day, a book exhibition and film show on illiterates were arranged with the co-operation of the jail authorities.

Film shows are arranged for prisoners at Government cost, and at their expenses also.

Prisoners are also taught moral hygiene by arranging visits of moral lecturers.

There is a 'Visitors' Board for jails under the chairmanship of the District Magistrate, which looks after the welfare of the prisoners.

Prisoners with good conduct and behaviour are released earlier before completion of their sentence on the recommendations of the Advisory Board.

JUVENILES AND BEGGARS

The administration of the provisions of juveniles and beggars is conducted under the following special Acts: (1) the Bombay Children Act, 1948, (2) the Bombay Probation of Offenders Act, 1938 and (3) the Bombay Prevention of Begging Act, 1959. The authority which implements these laws is the Director of Social Defence, Gujarat State, Ahmedabad.

The activities under these acts are briefly described below.

The Remand Home, Vadodara

The Bombay Children Act, 1948 was applied to the Vadodara district from 1951. Its implementation is carried out by the Vadodara District Probation and After Care Association, which receives Government grant as per rules. There is a Remand Home established since 1952 where children are kept for short periods till their cases are finally decided by the Juvenile Court. It is a place of safety. During their stay in the Remand Home, the children are observed by the Probation Officer, whose report is placed before the Juvenile Court. The child, who is found in need of institutional treatment, is sent to a certified school in the State. The boys and girls are kept in separate confinements and are engaged in craft and literacy classes run by the Remand Home, which has a capacity to accommodate 50 boys and 50 girls.

Juvenile Guidance Centre, Vadodara

The Vadodara District Probation and After Care Association, a voluntary agency, runs the Juvenile Guidance Centre, Vadodara. It was established in the year 1964. Non-institutional activities are undertaken to guide the wandering children with a view to preventing delinquency. The following activities are organised by the centre.

- (1) Case work and counselling
- (2) Recreation and cultural programme.
- (3) Indoor and outdoor games and games competitions
- (4) Library.

The Bombay Probation of Offenders Act, 1938

The Bombay Probation of Offenders Act, 1938 was applied to the district in the year 1959. The Chief Officer is entrusted to carryout implementation of the Act. The Act is a progressive social legislation and aims at helping the young offenders by re-educating them so as to make them better citizens. The Central Probation of Offenders Act, 1958 is also applied to this district since January, 1973. This Act is also one of the progressive social legislations in the field of correctional services.

Certified School, Vadodara

The certified school, established in 1950 at Vadodara, is a residential school and receives the children who are committed by the Juvenile courts in the State. This school has its own building and has an attached playground. In this school, the children are provided with the basic needs like food, clothing, bedding, medicines, recreational facilities, etc., free of charge. In addition, they are provided special services such as counselling guidance, training in vocational crafts, etc., so as to help their rehabilitation. This school provides academic training upto 7th standard and the boys are sent to outside schools for further studies. The children are kept in the school till they attain maturity. In deserving cases, the children are released on licence even prior to completion of their detention period.

After Care Hostel, Vadodara

An After Care Hostel at Vadodara was started in the year 1964 and is managed by the Vadodara District Probation and After-care Association. The association receives 100 per cent grant from Government.

This institution admits inmates who are released from correctional and non-correctional institutions, with a view to helping in their rehabilitation. They are provided with free lodging, boarding, clothes, medicines, etc. The Superintendent of the institution helps them to find jobs in different factories, workshops and offices, according to their aptitudes, so that ultimately they become useful citizens to the community.

Pilot Classification Centre, Vadodara

This centre was started in the year 1961-62, and is attached to the certified school at Vadodara. It is looked after by a part-time psychologist, a psychiatrist and a full time case worker. Children who are problematic

and are in need of specialised treatment are taken care of by this centre. They are being observed and classified and if necessary, are recommended for special institutional treatment.

Receiving Centre for Beggars, Vadodara

The Bombay Prevention of Begging Act, 1959 was applied to this district from 1st June, 1965, when the receiving centre for beggars at Varasia colony was started. The centre is declared as a detention home, where 200 inmates can be accommodated.

A person found begging in public is apprehended by the police and brought to this centre. The case-worker of the institution conducts necessary inquiry into the causes for his begging and submits his report to the Magistrate for necessary orders.

A beggar who is found homeless and destitute by the court is kept in the home, which provides him free lodging, boarding, clothes and medical care besides recreational facilities. The Beggars Home, Vadodara has a net-work of well established training programmes in handloom weaving, tailoring, carpentry, shoe-making manufacture of brooms, poultry, etc. The beggars are trained in various crafts, so that they are able to earn their bread and live a disciplined life after their release. The Government has also appointed one Visitors' Committee, which tenders advice in the day to day work.

State Home for Women, Vadodara

Under the Scheme of Moral and Social Hygiene and After-Care Services, a State Home for women was started in the year 1956, which is run by Government. The institution has a capacity to accommodate 100 women. In this institution, the cases of marital maladjustments, desitutes, illegitimate motherhood and rescued women are admitted. The inmates are kept for a period of one year and are given food, clothing, shelter, medical care, education and training in crafts, such as tailoring, embroidery, *ambar charkha*, book binding, etc. During their stay, the inmates are helped to rehabilitate in their families either by establishing contacts with their families or bringing about reconciliation or by employment, etc. A home is also attached to this institution where orphans, deserted and destitute children upto the age of 6 years are admitted for care and protection. For guidance in day-to-day work, a managing committee is appointed by the Government. The institution is housed in its own building.

Blind Shool, Vadodara

A Blind School was started in the year 1915 during the princely state regime and is run by the Government. The blind children are admitted to

this school and are provided free lodging and boarding, clothes, medical care, etc.

The inmates of this institution are given primary education upto seventh standard. The children are also given training in cane work, clay modelling and music.

The institution has its own building.

Home for Crippled Children, Vadodara

It was started in the year 1960 and is run by Government. The children in the age group of 5 to 16 years are admitted to this home directly as also through the Juvenile courts in the State.

The institution provides training to the crippled children with a view to helping them to become self reliant and live a gainful life in society. The welfare activities conducted by the institution for the handicapped included: (1) education, (2) training, and (3) rehabilitation. The institution meets the cost of lodging, boarding, clothing and medical care of the inmates. Such children are given special training by occupational therapist and physio-therapist.

The institution is looked after by a Superintendent, who is assisted by an Assistant Superintendent, a psychologist (part-time) a visiting Medical Officer, a nurse-cum-compounder, two special craft teachers, an occupational therapist, two occupational teachers, a physio-therapist and other staff.

Home for Mentally Retarded Children, Vadodara

This home was started in the year 1970 and is run by the Government. It provides free accommodation, food, clothing, medicines, etc., to the inmates. It gives training in light crafts. For the special treatment, the institution has obtained the services of a psychologist and a psychiatrist, and as per their guidance the treatment is given to the inmates. The occupational therapist also helps to train them in such crafts as cane work, weaving, etc. The liberal education teacher teaches the children in reading, writing and arithmetic.

The Office of the Child Marriage Prevention Officer, Vadodara

This office was started in the year 1971, for the effective implementation of the Child Marriage Restraint Act, 1929, enacted by the Government of India. The Officer-in-charge attempts to prevent child marriage in the city

and other adjoining places in the district and collects evidence for the effective prosecution the offenders. The Officer is also invested with the powers of a Police Inspector to enable him to carry out his duties effectively. This is an important and progressive legislation in the field of social reforms.

For eliciting public opinion against child marriages, educative and publicity measures are undertaken. An advisory committee consisting, among others, of social workers is also attached to this office.

The staffing pattern in these institutions is shown in the statement below.

STATEMENT XII-2

Staffing Pattern in the Institutions

Sl. No. 1	Category of Staff 2	Remand Home 3	The Bombay Probation Act of Offenders 4	Certified School 5	Receiving Centre for Beggars 6	State Home for Women 7	Blind School 8
1	The Probation Officer-cum-Superintendent	2 (One Lady)	1	1	..	..	..
2	Deputy Superintendent	..	..	2	1	2	..
3	Teachers, Craft instructors	2	..	7	1	3	7
4	Medical staff including attendants	2	..	..	3	6	1
5	Chief Officer ..	..	1	..	..	..	..
6	Liaison Officer ..	..	1	..	..	..	..
7	Others ..	12	..	5	20	9	6

Source : Director of Social Defence, Gujarat State, Ahmadabad.

JUDICIARY

The stages of evolution of the judicial administration in the Vadodara district may be broadly divided into following periods :

- (1) Early Maratha Period (1705-1802)
- (2) Period of British Influence (1802-1819)
- (3) Period of Judicial Changes (1839-1874)
- (4) Period of Reforms of Sir T. Madhavrao (1875-1880)
- (5) Period of Reforms by Sir Sayajirao III (1881-1939)

(1) Early Maratha Period (1705-1802)

The early Maratha invaders of Gujarat sought not territory but tribute. Territory became theirs, almost against their wish, because the Mughal empire fell to pieces. The disintegration of Musalman kingdom of Gujarat preceded as well as accompanied the Maratha conquest; and the Gaekwad and other Maratha chiefs obtained a portion only of the debris. The Musalman nobles, Rajput chieftains and petty girassias also gained or retained their respective shares in the territory.

The administration of civil and criminal justice in the State was in the hands of the civil Judge, who was a farmer of revenue called *izardar* or *kamavisdar*.

None of the proceedings were in writing except the clerk entering in his diary the benefits accrued from the decision on any disputed point. In the criminal cases, the *Izardar/Kamavisdar* was the Judge, who exercised limited powers and was not invested with the powers of inflicting the capital punishment of death. The usual punishments were fines, imprisonment or banishment and in very rare cases, death.

In short, the old system of administration of justice in the Vadodara State was as follows : There was the panchayat at the base, which was the ancient institution which gave prompt and cheap justice to the people. There were *kamavisdars* whose real business was to get money out of the districts they farmed, and therefore the civil and criminal justice was a strange wearisome task to them.

(2) Period of British Influence (1802-1819)

From 1802 to 1819, the State was ruled by a Commission of whom the Resident was a prominent member, and the British interference ranged over every part of the administration. The First Resident urged the members to devote their attention to the discharge of justice without endeavouring to establish a regular system for this subject. He also encouraged the system of *panchayats*. But Captain Carnac noticed that arbitration as a system of justice could not operate in a large and civilized society, where rights were determined not by a written law, but by local customs and usages. He therefore suggested for the establishment of a central court at Vadodara, wholly distinct from the court of the *Kotwal*. This central court, *nyayadhishi*, the Resident wished to see empowered with both criminal and civil powers.

History of the Central Court—Over the Central Court thus established presided a Chief Justice (Sarpant), under whom were three *pants* or *judges*,

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History of the Central Court—Over the Central Court thus established presided a Chief Justice (Sarpant), under whom were three *pants* or *judges*,

a *shastri* and a *kazi* for the decision of points concerning the Hindu or the Mahomedan law. The Central Court, tried both civil and criminal cases. Being both the first and the final court, it supplied all want of power in the *vahivatdars* of the districts. The court, composed of the *sarpant* and three *pants*, retained the form of a *panchayat*. The *pants* recorded their opinions separately, and the *sarpant*, after collecting them, took them to the *huzur*. For a short time the court was abolished when the post of the President of the *nyayadhishi* Court was abolished and all the *pants* were done away with in 1833 and cases were tried by the Dewan and a judge, aided by *Shirastedars*. A judge was again placed at the head of the Court.

(3) Period of Judicial Changes (1839-1874)

In 1839, the *devghar kacheri* was instituted by Maharaja Sayajirao II, so that a person discontented with the decision of the *nyayadhishi* might appeal to the Maharaja. However after 1845, the appellate powers were withdrawn from the *devghar kacheri* and was converted into a joint civil court with the *nyayadhishi* court, though the latter alone retained its criminal jurisdiction. But above the two civil courts, there was the *sadar nyayadhishi* court.

After five years (1850), a special court, called the *darakdar kacheri*, was instituted which was to be a court of appeal from the *sadar nyayadhishi* court in civil matters. This court remained in existence till the end of Ganpatrao Gaekwad's reign.

The Huzur Fauzdari Court—In 1860, the Huzur Fauzdari Court was instituted. It was both a magisterial and a criminal court, and deprived the *nyayadhishi* court of its criminal powers. The *izardari* system was then brought to an end, and each *mahal* was placed under a *vahivatdar*. The *vahivatdar* was assisted by four *aval karkuns*, one each for revenue, civil and criminal cases and the military department. The magisterial work and criminal cases were supervised by the *fauzdari kamdar*, revenue appeals went from the *vahivatdar's* court to the *sar suba*, finally the appeals in civil suits went to the *sadar nyayadhishi* and then to the Members' Court, after the latter had taken the place both of the *sadar nyayadhishi* court and of the 'Special Court'.

The Varisht Court—In 1871, a *Varisht* (high) Court of final appeal in civil, criminal and revenue matters was instituted by Malharrao Gaekwad.

(4) Period of Reforms of Raja Sir. T. Madhavrao (1875-1880)

Sir T. Madhavrao, the then Dewan of the Baroda State created a new judicial department based mainly on the system in vogue in the British

India. Under Maharaja Khanderao's system the *vahivatdar* exercised civil powers, but the revenue officers were entirely deprived of these powers and civil (munsiff) courts were instituted for civil cases in each taluka. Criminal work upto 2nd class was done by the *vahivatdar* under the designation of *Mahal Fauzdari Nyayadhishi*, while the Divisional *Naib Subas* were the first class magistrates, for their sub divisions. In each district, a district court was opened for original work above the powers of *munsiffs*, for hearing appeals from the *munsiff's* decisions, and for the trial of sessions cases and criminal appeals on the magistrates' orders.

The Sardar's court specially instituted in honour of the *sardars* consisted of a judge, the *siledar bakshi*, the *sibandi bakshi* and a *sardar* and a *darakdar* appointed from time to time. Each case was tried by the Judge and one other member of the court. All civil suits and criminal charges wherein the offences might have been compounded, in the first instance, were referred by the court to arbitration.

It was however abolished in 1904 and the work was handed over to the city Munsiff and city Judges' courts according to the limits of their jurisdiction.

(5) Reforms by Maharaja Sayajirao III (1881-1939)

Although Raja Sir T. Madhavrao had thus organised the judicial department on modern lines, it was after Sayajirao III assumed the reins of Government in 1881 that the department was streamlined. The administration of justice was brought to such a high state of efficiency and integrity that the decrees passed by Vadodara Courts were executed in British India as if they were passed by the British Courts themselves. Old laws were amended.

Nyayadhishis of Vadodara Prant—From 1875 the powers of the *Vahivatdars* were withdrawn and exclusive civil judiciary was introduced in the whole State. Accordingly the following civil courts were established in the Vadodara Prant.

1. Prant	Nyayadhishi	Vadodara
2. Special Prant	Nyayadhishi	Vadodara
3. Vadodara	Mahal	Nyayadhishi
4. Dabhoi	Mahal	Nyayadhishi
5. Sinor	Mahal	Nyayadhishi
6. Jarod	Mahal	Kamdar's Court
7. Chandod	Civil	Nyayadhishi
8. Vadodara	City	

These courts existed upto 1885-86, but the number of courts were either increased or decreased according to the exigencies of work, as shown below :

(i) a Naib Prant Nyayadhish was appointed for Vadodara Prant, (ii) A Joint Prant Nyayadhish was appointed to assist the Vadodara city Prant Nyayadhish and Vadodara Prant Nyayadhish in 1887-88, (iii) in 1888-89 Vadodara Naib Prant Nyayadhishi instead of additional Naib Prant Nyayadhishi was established, and (iv) in 1891-92 the Naib Prant Nyayadhishi was abolished and a Mahal Nyayadhishi was established to cope up with the increased work in the city court.

In order to lessen the burden of the Vadodara city Court, a special Naib Prant Nyayadhishi was opened which decided cases valued upto Rs. 500 for the city mahal and the Vaghodia mahal. The city court became a permanent feature from 1917-18.

The Mahal Nyayadhishis were empowered in 1901 to try civil suits upto the value of Rs. 10,000. The Naib Prant Nyayadhish, who was empowered to try suits of the value of Rs. 25,000, was allowed to do so for unlimited amounts.

Huzur Nyaya Sabha—The *Varisht* (high) Court was the supreme tribunal in the State. The Maharaja had the powers to revise the decisions of the *Varisht* Court and in exercise of these powers he was advised by the *Nyaya Sabha*, which was subject to the jurisdiction of the Privy Council. The *Nyaya Sabha* comprised three members including a judge of the *Varisht* Court. Appeals to the Huzur from the decree of the *Varisht* Court lay in such civil suits in which the value of the subject matter of dispute was of the value upto Rs. 5,000 and above in the case of immovable property, and upto Rs. 15,000 and above in the case of movable property.

The Varisht Court—The *Varisht* (high) Court at the State capital with a Chief Justice and two puisne judges was the highest judicial tribunal in the State. It was established in 1871. It did not exercise the original civil jurisdiction but exercised appellate and revisional jurisdiction in civil as well as in criminal matters. It could pass sentence of death or life imprisonment, but a sentence of banishment was subject to confirmation by the Huzur.

District Judge's Courts—Below the *Varisht* Court, came the court of the District and Sessions Judge. There was a district court at Vadodara. For the Vadodara city there existed a separate district court. A district court had powers to try original civil suits of the value of any amount, to

hear small cause suits upto Rs. 500, and to hear appeals from the decrees and orders of *munsiffs*. In criminal matters, it was called the “Sessions Court” and could try cases committed to it by the subordinate magistrates. In such cases, it could pass any sentence except that of life imprisonment, banishment, or death, which must be referred to the *Varisht* Court for confirmation.

Assistant Judges' Courts—Joint or Assistant Judges were appointed when necessary. The powers of a Joint Judge and of a District and Sessions Judge were the same in both civil and criminal matters, an Assistant Judge had the same powers in civil matters, but in criminal matters an appeal lay to the Sessions Judge on any sentence of imprisonment upto seven years passed by an Assistant Sessions Judge, while a sentence of more than 7 years' imprisonment required the confirmation of the Sessions Judge.

The Munsiffs' Court—Below the district court came the courts of the taluka *munsiffs* and magistrates. Every *munsiff* had powers to hear civil suits upto Rs. 10,000. He was also a first class magistrate for the taluka, or taluaks under his charge. There were eight *munsiffs'* courts in the former Vadodara district, viz., Vadodara (2), Padra, Karjan, Sinor, Dabhoi, Sankheda and Savli.

Where specially empowered a *munsiff* tried small cause suits upto Rs. 100, when he sat alone and upto Rs. 300, when forming a bench with another *munsiff*. In criminal matters, he could pass a sentence upto 2 years' imprisonment and fine upto Rs. 1,000.¹

In short, the judicial system in the Vadodara state had certain special characteristics which distinguished it from that prevailing in British India. These were : (i) the language of laws and of the Court was Gujarati, (ii) that there was complete separation of the judiciary and the executive since 1881,² (iii) that there was absolute independence of the Judicial Department. The Chief Justice exercised complete control and supervision over the Judicial Department, (iv) the Huzur Nyayasabha (Privy Council) was established to entertain and dispose of civil and criminal appeals and extraordinary applications against the decisions of the High Court, (v) Courts of small causes were established for speedy disposal of petty money suits, and (vi) The High Court was the supreme tribunal in the State subject to an appeal to Huzur Nyayasabha in cases similar to those in which appeals were permitted in the Dominion of India to the Privy Council. The High Court did not exercise original civil or criminal jurisdiction but exercised only appellate and revisional powers.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 243-70.

2. District and Sessions Judge, Vadodara.

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1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 243-70.

2. District and Sessions Judge, Vadodara.

CHHOTA UDEPUR STATE

Chhota Udepur or Mohan exercised unlimited civil powers and in criminal matters, had power to try all except the foreigners for capital offences. Here the Agency exercised merely general supervisory power.

At the time of merger, on 10th April, 1948 following Courts were in existence in the Chhota Udepur State.

(1) *The Court of Nyayadhish* had powers to try suits up to Rs. 500. He was invested with the powers of the First Class Magistrate.

(2) *The Court of the Sar Nyayadhish* had powers to try the suits exceeding Rs. 500 and to hear appeals against the judgements of the Nyayadhish. He was invested with the powers of the Sessions Judge.

(3) *The Court of His Highness* exercised the powers of the Privy Council.

BHADARWA STATE

This was a fourth class state in the Rewa Kantha Agency. The state had civil jurisdiction to the extent of Rs. 5,000 and criminal powers for three years rigorous imprisonment and fine up to Rs. 5,000. The residuary jurisdiction for civil and criminal matters remained with the Agency.

SANKHEDA MEWAS THANA AND PANDU MEWAS THANA

The entire jurisdiction, civil and criminal was exercised through the Political Agent, Assistant Political Agent, Deputy Political Agent and the thanadars.

JUDICIAL SYSTEM AFTER MERGER OF THE BARODA STATE
WITH THE PROVINCE OF BOMBAY FROM 4TH OCTOBER, 1949

“Bombay State”

The administration of civil and criminal justice was brought on a par with the judicial machinery existing in the Bombay Province and all the Courts were placed under the control of the District and Sessions Judge, Vadodara. The High Court of Bombay exercised general control over the District Court, and the following Courts were established in the district.

1. District and Sessions Judge, Vadodara
2. The Civil Judge, Senior Division, Vadodara
3. The Civil Judge (Junior Division) and J. M. F. C., Padra

4. The Civil Judge (Junior Division) and J. M. F. C., Karjan
5. The Civil Judge (Junior Division) and J. M. F. C., Sinor
6. The Civil Judge (Junior Division) and J. M. F. C., Dabhoi
7. The Civil Judge (Junior Division) and J. M. F. C., Sankheda
8. The Civil Judge (Junior Division) and J. M. F. C., Chhota-Udepur
9. The Civil Judge (Junior Division) and J. M. F. C., Savli
10. The Small Causes Judge, Vadodara
11. The City Magistrate, First Class, Vadodara
12. The Additional City Magistrate, First Class, Vadodara

The Court of Small Causes existed in the State for many years. On the State's merger, the special Judicial Officer recommended its continuance. Accordingly it was continued but was abolished from March 1953.¹

The Courts of the city magistrate and the Additional City Magistrate were established from 1949. Thereafter two more magistrates, viz., the Resident Magistrate, First Class, Vadodara and the Additional Resident Magistrate, First Class, Vadodara were appointed. From 1st September 1952 the Stipendiary Resident Magistrate, Vadodara was also appointed. These Magistrates as well as the Magistrates of all Talukas in the district exercised the powers of First Class Magistrates and were under the control and supervision of the District Magistrate.

The Mamlatdar at Vaghodia exercised the powers of a Second Class Magistrate.

After bifurcation of the Bombay State, a separate High Court for Gujarat was created from 1st May, 1960 and all the judicial courts all over the State have been placed under the High Court of Gujarat.

PRESENT SET-UP

(1) Civil Courts

The District Judge is the highest judicial authority in the district and presides over the District Court. The District Court is the principal court of original jurisdiction in the district. It is also a Court of Appeal from all decrees and orders passed in suits valued upto Rs. 10,000 by the subordinate Courts. The District Judge exercises general control over all Civil Courts and their establishments and inspects the proceedings of Courts, subordinate to him. He also exercises jurisdiction under the following Acts, viz., the Motor Vehicles Act, 1939, the Land Acquisition Act 1894, the

1. Home Department No. 9914/5 (9)-A, dated 20th February, 1953.

Bombay Public Trusts Act, 1950, the Gujarat Municipalities Act, 1963, the Gujarat Panchayats Act, 1961 and the Bombay Rents, Hotels and Lodging House Rates (Control) Act, as adopted and applied to Gujarat State.

At present, the District Judge is assisted by three Assistant Judges. The Assistant Judge exercises both original and appellate jurisdiction in civil as well as criminal matters. He can try original cases, the value of which does not exceed Rs. 15,000. So far as appellate jurisdiction is concerned, he is empowered to try such appeals from the decrees and orders of the subordinate Courts which are filed in the District Court and which may be referred to him by the District Judge.

Subordinate to the District Judge are Courts of the Civil Judge, Senior Division and Judicial Magistrates First class at Vadodara and the Courts of the Civil Judge (Junior Division and Judicial Magistrates, First Class) in the talukas.

The jurisdiction of the Civil Judge, Junior Division, extends to all original suits and proceedings of a civil nature, wherein the amount involved in the subject matter does not exceed Rs. 10,000 in value, whereas that of Civil Judge, (Senior Division), extends to all original suits and proceedings of a civil nature irrespective of the value of the subject matter.

At Vadodara, besides the District Court, there is a Civil Judge, Senior Division and Judicial Magistrate First Class, who is assisted by two Civil Judges, Senior Division, and Judicial Magistrates First Class and five Civil Judges, Junior Division and Judicial Magistrates First Class. There are also Courts of following Judicial Magistrates at Vadodara.

1. The Judicial Magistrate, F. C., 1st Court, Vadodara
2. The Judicial Magistrate, F. C., 2nd Court, Vadodara
3. The Judicial Magistrate, F. C., 3rd Court, Vadodara
4. The Judicial Magistrate, F. C., 4th Court, Vadodara
5. The Special Judicial Magistrate, First Class, Municipal Corporation, Vadodara.

There are Courts of the Civil Judges (Junior Division) and Judicial Magistrate, First Class at Padra, Karjan, Sinor, Dabhoi, Sankheda, Chhotu-Udepur and Savli.

Linked Courts

1. *Sinor* : The Civil Judge, Junior Division and Judicial Magistrate, First Class, Karjan holds Court at Sinor for 5 days in each month, commencing from 3rd Monday of the month for the disposal of Civil and Criminal matters of Sinor taluka.

2. *Vaghodia* : The Judicial Magistrate, First Class, 3rd Court, Vadodara holds his sittings at Vaghodia for two days beginning from First Monday in the first week of each fortnight for disposal of criminal cases of Vaghodia taluka.

3. *Naswadi* : The Civil Judge, Junior Division and Judicial Magistrate, First Class, Sankheda, holds his Court at Naswadi for two days from the first Monday in each month for the disposal of Criminal matters of Naswadi taluka.

Whenever there is vacancy in any of these courts, arrangements for the disposal of work are made by keeping charge with presiding officer of a court of the neighbouring taluka as may be convenient according to the exigencies of work.

(II) *Criminal Courts*

The District Judge, Vadodara is also the Sessions Judge of the district. As Sessions Judge, he tries criminal cases committed to his Court by the Judicial Magistrates after preliminary enquiry and hears appeals against the decisions of the subordinate Magistrates.

At present, the District Judge is assisted by three Assistant Judges as under :

1. The Assistant Judge and Additional Sessions Judge, Vadodara.
2. The Extra Assistant Judge and Additional Sessions Judge, Vadodara, and,
3. The 2nd Extra Assistant Judge and Assistant Sessions Judge, Vadodara.

The Assistant Judge who is invested with the powers of the Additional Sessions Judge, tries sessions cases, criminal appeals and miscellaneous criminal applications transferred to him for disposal by the Sessions Judge. If the Assistant Judge is not invested with the powers of a Sessions Judge, he works as an Assistant Judge only. The Sessions Judge and the Additional Sessions Judge may pass any sentence authorised by law, but any sentence of death passed by them is subject to confirmation by the High Court. They can also hear appeals and revision applications from the decisions of Magistrates. The Assistant Sessions

Judge can impose a sentence of imprisonment for 10 years but has no power to hear appeals and revision applications.

The Assistant Judge and Additional Sessions Judge is also the Special Judge of the district and tries all cases under the Bombay Prevention of Corruption Act, 1947.

The Bombay Separation of Judicial and Executive Functions Act, 1953, and the Code of Criminal Procedure, 1958, classify the Magistrates into two categories, viz., (1) Judicial Magistrates, and (2) Executive Magistrates.

All the Judicial Magistrates in the district are the First Class Magistrates. They are subordinate to the Sessions Judge, who may, from time to time, make rules or give special orders as to the distribution of business among them.

Executive Magistrates fall under the following classes : (1) District Magistrate, (2) Sub-divisional Magistrate, and (3) Taluka Magistrates.

All sub-divisional Magistrates are subordinate to the District Magistrate and the Taluka Magistrates to the Sub-Divisional Magistrates concerned subject to the general control of the District Magistrate. Their powers and functions are described in the paras III-A, IV and V of Schedule III of the Criminal Procedure Code. Appeals from the orders of the Executive Magistrates requiring security for keeping peace lie to the Sessions Court.

Law Officers

The Law Officers of Government functioning in the district are :

1. The District Government Pleader and Public Prosecutor,
 2. The Assistant Government Pleader and Assistant Public Prosecutor,
- and

3. The 2nd Assistant Government Pleader and Assistant Public Prosecutor.

Civil Cases

The following statement shows the number of Civil Cases classified according to (A) the nature of suits and (B) the amount involved in them during the year 1972.

STATEMENT XII-3

Sl. No. 1	Particulars 2	No. of Cases 3
<i>A-Civil Cases classified according to nature of suits 1972</i>		
1	No. of cases pending at the end of the year 1971	6,267
2	New cases instituted during the year 1972	
	Cases relating to—	
(a)	Money and movable property	4,753
(b)	Immovable property	1,402
(c)	Specific Relief	298
(d)	Mortgage	51
(e)	Others	138
3	Cases revived and received otherwise	133
4	Suits disposed of during the year	5,289
5	Cases pending at the end of the year 1972	7,753
<i>B-Civil cases classified according to amount involved, 1972.</i>		
1	Not exceeding Rs. 10	23
2	Over Rs. 10 but not exceeding Rs. 50	116
3	Over Rs. 50 but not exceeding Rs. 100	298
4	Over Rs. 100 but not exceeding Rs. 500	2,215
5	Over Rs. 500 but not exceeding Rs. 1000	1,194
6	Over Rs. 1000 but not exceeding Rs. 5000	1,558
7	Over Rs. 5000 but not exceeding Rs. 10,000	357
8	Over Rs. 10,000	403
9	Cases of which the monetary value could not be estimated	478
Total		6,642

Out of a total of 6,642 cases registered in the year 1972, those relating to money and movable property numbered 4,753 or 70.15 per cent. The cases, not exceeding Rs. 5,000 in value numbered 5,404, those above Rs. 5,000 but not exceeding Rs. 10,000 numbered 357 and those above Rs. 10,000 numbered 403 whereas there were 478 cases, the monetary value of which could not be estimated. Out of 5,289 suits disposed of 768 were disposed of without trial, 536 were exparte, 536 were decided by admission of claim, 2,374 by compromise and 1,064 after full trial, and 11 suits were transferred.

There were 429 appeals (including miscellaneous appeals) pending at the end of the year 1972. Out of the 588 appeals disposed of during the year, 57 were either dismissed or not prosecuted, decrees of the lower Courts were confirmed in 384, modified in 34, reversed in 108 and 5 appeals were remanded for re-trial.

Criminal Cases

In the year 1972, 70,180 offences were reported in the Criminal Courts of the district. The number of persons under trial was 83,821. Of these, cases of 68,289 persons were disposed of, 11,202 persons were discharged or acquitted, 56,718 persons were convicted, 341 persons were committed to Sessions and 28 persons died or escaped. Of those convicted, 54,360 were sentenced to various terms of imprisonment, 1,713 were asked to pay fine and 645 were released after giving security.

In the Sessions Court, 118 offences inclusive of those mentioned above were reported during the year 1972. Persons undertrial were 341, of whom 207 were acquitted or discharged and 45 persons were convicted and cases of 89 persons were pending for trial at the end of the year. Out of 45 persons convicted, all were sentenced to various terms of imprisonment including 15 for life.

Revenue and Expenditure

The total revenue derived in the year 1973 from such items as general fees, fines and forfeiture, cash receipts of record room, miscellaneous receipt and sale proceeds of unclaimed and escheated property amounted to Rs. 6,26,444, whereas the total expenditure on salaries, allowances and contingencies amounted to Rs. 14,31,519.

Nyaya Panchayats

In 1972, there were in all 782 Nyaya Panchayats and 2 Nagar Panchayats in the district constituted in accordance with section 212 of the Gujarat Panchayats Act, 1961.

Bar Associations

The Bar Associations are formed to promote co-operation among the members of the Bar. They are not registered. There are Bar Associations at Vadodara, Padra, Karjan, Sinor, Dabhoi, Sankheda, Chhota Udepur and Savli in the district and their membership was 321 at the end of March 1972.

STATEMENT XII-2

Police Stations and Outposts

Sl. No.	Police Station			Out post
1	2			3
A. Vadodara City				
1	Vadodara City	..	..	..
2	Raopura	..	..	..
3	Sayanjigunj	..	..	..
4	Bajwa	..	..	Nandesari
B. Vadodara District				
1	Vadodara	..	..	..
2	Padra	..	..	..
3	Varnama	..	..	..
4	Savli	..	..	..
5	Sinor	..	..	..
6	Pandu	..	..	..
7	Dabhoi	..	..	..
8	Bhoderava	..	..	..
9	Jetpur	..	..	..
10	Karali	..	..	..
11	Sankheda	..	..	..
12	Chhota-Udepur	..	..	..
13	Rangpur	..	..	..
14	Kavant	..	..	..
15	Nasvadi	..	..	..
16	Vaghodia	..	..	..
17	Tilakwada	..	..	..
18	Karjan	..	..	..
				1 Dabka
				2 Sadhli
				3 Masar
				4 Kelanpur
				5 Khakhariya
				6 Samlaya
				7 Desar
				8 Chandod
				9 Karvan (Kayavarohan)
				10 Tundav
				11 Dodka
				12 Jahugam
				13 Kadval
				14 Chalamali
				15 Bahadarpur
				16 Bodeli
				17 Vasana
				18 Morakhala
				19 Tejgadh
				20 Zoz
				21 Rampura
				22 Panwad
				23 Umathi
				24 Kadipani
				25 Amroli
				26 B.riyad
				27 Jarod
				28 Alva
				29 Ambali
				30 Vajiriya
				31 Valan
				32 Moti Koral

Source :
 1 District Superintendent of Police, Vadodara City.
 2 District Superintendent of Police, Vadodara District (Rural).

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Sl. No.	Police Station	Out post
1	2	3
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2	Raopura	
3	Sayajigunj	
4	Bajwa	
<i>B. Vadodara District</i>		
1	Vadodara	
2	Padra	
3	Varnama	
4	Savli	.. ..
5	Sinor	.. ..
6	Pandu	.. ..
7	Dabhoi	.. ..
8	Bhadraya	.. ..
9	Jetpur	.. ..
10	Karali	.. ..
11	Sankheda	.. ..
12	Chhota-Udepur	.. ..
13	Rangpur	.. ..
14	Kavant	.. ..
15	Nasvadi	.. ..
16	Vaghodia	.. ..
17	Tilakwada	.. ..
18	Karjan	.. ..
1	Dabka	.. ..
2	Sadhli	.. ..
3	Masar	.. ..
4	Kelanpur	.. ..
5	Khakhariya	.. ..
6	Samlaya	.. ..
7	Desar	.. ..
8	Chandod	.. ..
9	Karvan (Kayavarohan)	.. ..
10	Tundav	.. ..
11	Dodka	.. ..
12	Jabugam	.. ..
13	Kadval	.. ..
14	Chalamali	.. ..
15	Bahadarpur	.. ..
16	Bodeli	.. ..
17	Vasana	.. ..
18	Morakhala	.. ..
19	Tejgadh	.. ..
20	Zoz	.. ..
21	Rampura	.. ..
22	Panwad	.. ..
23	Umathi	.. ..
24	Kadipani	.. ..
25	Amroli	.. ..
26	Bariyad	.. ..
27	Jarod	.. ..
28	Alva	.. ..
29	Ambali	.. ..
30	Vajiriya	.. ..
31	Valan	.. ..
32	Moti Koral	.. ..

Source : 1 District Superintendent of Police, Vadodara City.
2 District Superintendent of Police, Vadodara District (Rural).

CHAPTER XIII

OTHER DEPARTMENTS

The role of public administration has been increasingly expanding in recent years to meet the exigencies of planning for a Welfare State. The activities now undertaken by Government are so diverse and manifold that a number of departments which did not exist or play any significant part in past, have come up since Independence to give effect to and keep pace with the growing tempo of work generated by various development activities under the Five Year Plans. The Departments of Agriculture, Animal Husbandry, Forest, Public Works, Industries, Co-operation, etc. have now become important. The organisational set-up of (1) the Agriculture Department (2) the Animal Husbandry Department (3) the Forest Department (4) the Public Works Department (5) the Co-operation Department (6) the Industries Department (7) the Office of the Assistant Director of Information and (8) Office of the District Statistical Officer, are dealt with in this Chapter.

THE AGRICULTURE DEPARTMENT

The District Agricultural Officer with headquarters at Vadodara is in charge of the agricultural activities in the district. Before the introduction of the Panchayati Raj, he was under the administrative control of the District Collector. Thereafter, he has been placed under the District Development Officer of the District Panchayat. However, he remains as before under the Department of Agriculture for technical supervision and control. In this respect, he is directly responsible to the Superintending Agricultural Officer, Vadodara. He is assisted by one Assistant District Agricultural Officer.

The Agricultural Officer (Seed Farms) is supervising technical work of Seed Multiplication farms and prepares schemes of Seed Farms. There is one Extension Officer, (Agriculture) in each taluka. These officers are working at taluka level under Taluka Development Officers, who are looking after the extension activities under the guidance of the District Agricultural Officer.

The District Agricultural Officer is responsible for carrying out agricultural extension activities through the field staff mentioned above. The main functions of the District Agricultural Officer are (i) implementation of developmental schemes under the Five Year Plans, (ii) organisation of crop protection services and training methods, (iii) supervision of agricultural activities

in blocks, crop cutting experiments and seed multiplication farms, conducting trials of improved seeds and fertilizers, (iv) organisation of farmers unions, crop competitions and *van mahotsav*, (v) distribution and storage of improved seeds, (vi) preparation of rural and town compost, (vii) technical guidance to co-operative farming societies, (viii) organisation of Rabi and Kharif campaigns and imparting training to the technical staff and cultivators, (ix) technical inspection of the agricultural development activities of the blocks, (x) extension of agricultural development schemes like construction of wells, oil-engines and pumping sets subsidy scheme, plant protection scheme, etc.

THE ANIMAL HUSBANDRY DEPARTMENT

The Officer at the district level in charge of animal husbandry activities is the District Animal Husbandry Officer. He is responsible technically to the Director of Animal Husbandry, Gujarat State, Ahmadabad and administratively to the District Development Officer. The main functions of the District Animal Husbandry Officer are to carry out schemes relating to improvement of the breed of cattle, protection of cattle against contagious diseases, treatment of sick animals in veterinary dispensaries, castration of scrub animals and other developmental activities relating to animal husbandry.

He is assisted in his work by 12 Veterinary Officers, 38 Livestock Inspectors and other technical staff.

THE FOREST DEPARTMENT

The principal functions of the Forest Department are protection, conservation, utilisation and development of forest, measures for prevention of soil erosion by afforestation and research in silviculture.

Set-up of the Department

The Forest Department is headed by the Chief Conservator of Forests, Gujarat State, Vadodara. He is assisted by five Conservators of Forests placed in charge of each forest circle at (1) Surat (2) Junagadh (3) Vadodara (4) Gandhinagar and (5) Research and Working Plan Circle, at Vadodara. The Vadodara Forest Division is under the jurisdiction of the Conservator of Forests, Vadodara Circle, Vadodara.

The Conservators have under them Deputy Conservators of Forests to look after the administration of the Divisions under their charge. They belong to Indian Forest Service Senior Scale or Gujarat Forest Service Class I. The Deputy Conservator of Forests, is assisted by the Assistant Conservator of Forests, who belongs to Junior Scale Class I of the All India Forest Service or Class II of Gujarat Forest Service.

The Divisions are subdivided into small executive charges called 'Ranges' in charge of the Range Forest Officers who are non-Gazetted subordinate officers of Class III. They are trained at Forest Colleges at Dehra Dun or at Coimbatore. In addition to territorial charges of the Ranges there are special duty Range Forest Officers mentioned below.

(i) Technical Range Forest Officer who assists the Deputy Conservator of Forests in technical matters in the office.

(ii) Society Range Forest Officer who looks after the work of Forest Labourers' Co-operative Societies.

(iii) Mobile Squad Range Forest Officer—He is allotted special duty for protection of forest and detection of forest offences. He is provided with a jeep and a driver and an armed constable to assist him in performance of his duties.

The 'Range' is sub-divided into 'Rounds' and each Round is managed by Round Forest Officer or a Forester who is usually trained at Forest School at Kakrapar. Each Round is further subdivided into 'Beats' and each beat is managed by a Beat Guard who is also called a Forest Guard. He is trained at Forest School, Kakrapar.

There are four 'Ranges' in the Chhota Udepur Division of Vadodara Forest Circle. These are : Chhota Udepur, Kawani, Naswadi and Jetpur. In each of the three Ranges *viz.*, Chhota Udepur, Kawani and Jetpur Ranges, there are 5 Rounds whereas in Naswadi Range there are 4 Rounds.

Area and Type of Forests

Forest of Vadodara district comprise 'Dry mixed Deciduous type of forests'. The total forest area of Vadodara district was 766.54 sq. km., in 1970-71. Out of this area, 536.97 sq. km., was under Reserved Forests and 229.57 sq. km.—was under unclassified forests. In addition to Government forest area, there are number of private forests of Jagirdars spread over an area of 201.71 sq. km. As per recent legislation *viz.*, the Gujarat Private Forest (Acquisition) Act, of 1972 which has come into force from 1st August 1973, these forests, also vest in Government and as per provisions of this Act the Jagirdars of private forests are entitled for compensation.

THE PUBLIC WORKS DEPARTMENT

This Department deals with (1) Roads and Buildings, (2) Irrigation, (3) Electricity, and (4) Ports. Their sphere of activities are quite distinct

from each other. The first two branches work under separate Superintending Engineers, while the work relating to electricity is placed under the charge of Chief Engineer (Electrical) to Government, Ahmadabad. The Ports Organisation is headed by the Director of Ports, with headquarters at Ahmadabad.

(1) Roads and Buildings

Activities in regard to roads and buildings cover the construction, maintenance and repairs of the roads, Government buildings and bridges.

There is a separate division for roads and buildings at the district headquarters under the charge of Executive Engineer, who is placed in Gujarat Service of Engineers, Class I. He functions under the control and guidance of the Superintending Engineer, Roads and Buildings Circle, Vadodara. The National and State Highways are placed under the charge of the Executive Engineer.

There are six sub-divisions headquartered at Vadodara, Bodeli and Chhota Udepur, each under the charge of a Deputy Engineer, who belongs to the Gujarat Service of Engineers, Class II. He functions under the control and guidance of the Executive Engineer.

Each sub-division is further divided into sections, each in charge either of a Junior Engineer, Supervisor or an Overseer.

In the year 1972-73, the total length of roads under the Public Works Department was 437 km.

There is one Road Projects Unit at Vadodara headed by the Executive Engineer, under whom there are four sub-divisions, one of which is situated in Vadodara district. He deals with the preparation of plans and estimates, survey works, etc., and collects hydraulic data for the bridges.

The Superintending Engineer, Roads Project Circle, Gandhinagar is the controlling officer of this unit.

Set-up under District Panchayat—Since 1963 on the introduction of the Panchayati Raj, Major District Roads, Other District Roads and Village Roads have been transferred to the Panchayats. The Executive Engineer, Vadodara District Panchayat, looks after such roads. He works under technical control of the Superintending Engineer, Panchayat Circle, Vadodara who looks after roads and minor irrigation schemes transferred to the Panchayat. The total length of roads under the District Panchayat, was 1816 km., in 1972-73.

(2) Irrigation Wing

There are two main irrigation circles headquartered at Vadodara, each in charge of a Superintending Engineer. These are : (1) Mahi Right Bank Canal Project, Stage-I, and (2) Narmada Irrigation Circle. The former deals with distribution of irrigation waters in the Kheda district. It has five divisions and twenty sub-divisions under the charge of Executive Engineers and Deputy Engineers respectively. The latter circle is entrusted with the work of multi-purpose irrigation project on the river Narmada, which will provide irrigation facilities to some areas of Vadodara district.

There are four divisions under the charge of Executive Engineers and five sub-divisions headed by Deputy Engineers under this circle.

Irrigation Set-up under Panchayat—Minor Irrigation schemes, check-dams and tube-wells transferred to Panchayats in 1963 are looked after by the Executive Engineer, Vadodara District Panchayat. An Additional Executive Engineer helps him in irrigation work. They are under the control of Superintending Engineer, Panchayat Circle, Vadodara.

Minor Irrigation Project Sub-division, Vadodara headed by a Deputy Engineer is entrusted with the survey, investigation and preparation of plans and estimates of minor irrigation schemes of the State Government. He is under the Superintending Engineer, Minor Irrigation Project Circle, Gandhinagar.

Allied Offices under the Irrigation Wing : (under the P. W. D.)

(i) The Directorate of Ground Water Investigation, Ahmadabad carries out the work of drilling tube-wells and geological investigations in this district. For this purpose, the Gujarat Tube-wells Division (No. 5), the Gujarat Tube-wells Mechanical Sub-Division (No. 16) and the Ground Water Sub-Division (No. 2) are located at Vadodara, under the supervision of this Directorate.

(ii) A Water Resources Investigation Circle, under the charge of the Superintending Engineer, with the headquarters at Ahmadabad was created in February, 1970. It carries out investigations and prepares plans and estimates of the major and medium irrigation projects included in the Plans. Its jurisdiction extends to the whole State.

A water Resources Investigation Sub-Division at Vadodara functions under the control of the Executive Engineer, Water Resources Investigation Division, Ahmadabad. This sub-division collects the rain and river gauging data of all rivers in the State including those in the Vadodara district.

For conducting investigations, there are two divisional offices, viz., (i) Engineering Geological Division, in charge of Geologist Class-I for geological investigations of all projects, and (ii) Soil Survey Division, Vadodara, headed by the Soil Survey Officer, Class-I, who conducts soil survey investigations of all projects. He works under the control of the Water Resources Investigation Circle, Ahmadabad.

The Flood Control Organisation was set-up by the Government in 1969 following the heavy floods of 1968 which ravaged large areas in the State. Flood Control Circle, Ahmadabad, under the charge of the Superintending Engineer, looks after all flood protective schemes in the State, which involve expenditure of Rs. 3 lakhs and more. The schemes costing less than this amount are transferred to the Panchayats. There is a Flood Control Sub-Division at Vadodara in charge of a Deputy Engineer, who works under the Control of the Executive Engineer, Flood Control Division, Ahmadabad. The Deputy Engineer is entrusted with the work of investigation and of preparing flood control schemes on the Vishwamitri, the Dhadhar and the Narmada rivers which flow through this district.

The Engineering Research Institute, Vadodara, deals with basic and fundamental research work pertaining to Civil Engineering works, either in execution or proposed to be executed. It is headed by the Director, who is a class one officer in the Gujarat Service of Engineers. The jurisdiction of this institute is spread all over the State. The Directorate is assisted by (1) Research Officer Class-I, who looks after (i) the soil mechanics division, (ii) the material testing division, (iii) the hydraulic division, (iv) the highway research unit, and (v) the tube-wells division. (2) the Senior Geologist is in charge of the engineering geology division and (3) the Soil Survey Officer is in charge of soil survey organisation.

All these units are located at Vadodara.

Further, the Director is assisted by a Deputy Director and Research Officers. These officers are assisted by various categories of technical as well as non-technical staff under them.

There is a Geological Organisation in charge of Superintending Engineer with headquarters at Gandhinagar for carrying out (a) exploration of foundations of dams, power houses, weirs, bridges, etc., (b) ground water investigations, and (c) conducting material surveys for locating quarries required for roads, buildings, irrigation structures, etc.

There are two Geological Divisions at Vadodara for engineering projects, irrigation as well as roads and buildings. One of them is admini-

stratively attached to Engineering Research Institute, Vadodara doing the research work of projects under construction while the other is administratively attached to the Water Resources Investigation Circle, Ahmadabad for the purpose of investigation of projects under the Plans. These divisions are headed by Geologists, Gujarat Service of Engineers, Class-I who are assisted by four Geologists, Class-II. The jurisdiction of these divisions extend to the entire State and has sub-divisions or sections at various places.

Further there is a Mechanical Circle headed by the Superintending Engineer, headquartered at Ahmadabad. So far as the Vadodara district is concerned there are three sub-divisions at Vadodara, viz., (i) Workshop Sub-Division, (ii) Machine Shop Sub-Division, and (iii) Fabrication Sub-Division. These sub-divisions work under the Executive Engineer, Work-shop Planning Unit, Ahmadabad.

(3) *Electrical Organisation*

The Electrical Division, at Vadodara was created with effect from 1st March, 1952. It is in charge of the Executive Engineer (Electrical) who is Class-I Officer. He has jurisdiction over Vadodara, Bharuch, Surat, Dangs, Valsad, Kheda and Panch Mahals districts. There are three sub-divisions under him, (1) Electrical Sub-Division, Vadodara (2) Electrical Sub-Division, Surat and (3) Electrical Sub-Division, Anand. These sub-divisions are in charge of Deputy Engineers. The sub-division at Vadodara is in charge of Vadodara and Bharuch districts.

The function of this division is to check the plans and estimates of electrical installations, lifts and air conditioners, etc., received from the Deputy Engineers under its control. The plans and estimates duly checked are to be forwarded to the departments concerned for administrative approval and allotment of funds. The powers have been delegated to this division to accord technical sanction.

Before the introduction of Panchayati Raj, all the works of electrical installation of original nature, as well as maintenance in all the Government buildings were looked after by this division. Subsequently, the works upto Rs. 5,000 including maintenance and repairs have been transferred to Roads and Buildings Wing.

On the formation of Panchayati Raj from 1st April 1963, the electrical installation and maintenance in Panchayat buildings are carried out by the Panchayats.

(4) *Ports*

There are no ports in the district.

THE CO-OPERATION DEPARTMENT

The Department of Co-operation discharges one of the important functions of the development of economy by providing guidance and co-ordination to the subordinate offices at the district and taluka levels in the effective implementation of the development programme set out under the co-operative sector under the plans. The administrative set-up of the Department at the State level and the district and taluka levels in the Vadodara district is delineated below.

State Level Set-up

The Registrar of co-operative Societies, with headquarters at Ahmadabad is the head of the Co-operation Organisation in the State. He works under the Agriculture, Forests and Co-operation Department at the State level. He discharges functions in twin capacities : (i) as the Registrar General of Money-lenders, and (ii) as the Director of Agricultural Marketing. In this work he is assisted by Deputy and Assistant Registrars and other staff working at the headquarters.

As Registrar General of Money-lenders, he is in charge of regulation and control of the money-lenders' business under the Bombay Money-Lenders Act, 1946. As the Director of Agricultural Marketing, he sees to the implementation of the Gujarat Agricultural Produce Markets Act, 1963. He looks after the constitution and organisation of regulated markets and other ancillary matters connected therewith. Since March, 1973, a new Directorate for Cottage Industries and Industrial Co-operatives has been set up and the Registrar of Co-operative Societies has been relieved of the responsibilities of cottage industries and industrial co-operatives.

Reorganisation of the Department

The Department was reorganised in 1968, for the sake of economy and efficiency. Under this scheme the offices of the Divisional Deputy Registrars at Ahmadabad, Vadodara and Rajkot were abolished, and the powers exercised by them and duties performed by them were adjusted among the offices of the Registrar at the State level and the District Registrars at the district level. Further the functions of the District Registrars were also decentralised. The activities of the Department were divided into four sections such as (i) Co-operation and Agricultural Marketing, (ii) Industrial

Co-operatives (which is also placed under separate Directorate since March 1973 at State level), (iii) Money-lending and (iv) Audit. Separate District Registrars (except Audit) were appointed for each of these activities, who were placed in charge of one or more districts.

Set-up at the District Level

In the Vadodara district, the administrative set up of each of the wings is as under :

(1) *Co-operation and Marketing*—According to the revised set-up, a District Registrar Class-I with headquarters at Vadodara deals with Co-operation and Marketing sections and exercises jurisdiction over the districts of Vadodara and Bharuch. At the headquarters, the District Registrar is assisted by two Assistant District Registrars one each for liquidation and consumers' co-operatives besides one Office Superintendent, one Head Clerk, Accountant, three Co-operative Officers (one specially for Milk Societies), five Assistant Co-operative Officers and other staff. The District Registrar also functions as the Deputy Director of Agricultural Marketing and Rural Finance. He exercises powers in respect of all types of societies including federal societies, having jurisdiction beyond the district as also in respect of subjects not transferred to the Panchayats. He entertains proposals for the establishment of regulated markets and the declaration of Market yards.

(2) *Department's set-up in the Panchayat*—With the introduction of Panchayati Raj form April, 1963, some of the powers and functions of the co-operative sector were transferred to the panchayats and the services of the District Registrars were placed at the disposal of the district panchayats, though they continued to hold the charge of subjects dealt with by Government. With effect from September, 1964, they were withdrawn from the district panchayats, but the services of Assistant District Registrars were placed at the disposal of the district panchayats to look after the subjects transferred to them.

(3) *Money-lending*—The District Registrar, Vadodara is responsible for the implementation of the Bombay Money-lenders Act, 1946 in the Vadodara, Bharuch, Surat, Valsad and the Dangs districts and grants or refuses licences to money-lenders on merits. In case of any breach, he is empowered to compound the offences under section 35 (c) of the Act. It is also his duty to take final decisions in cases of illicit money-lending detected by the subordinate officers working under him. The Assistant District Registrar headquartered at Surat conducts inquiries into applications for licences for the districts of Surat, Vadodara, Valsad, Bharuch and Dangs and forwards them with his report to the District Registrar (Money-lenders), who may grant or refuse them on merits. The Co-operative

Officers attached to him detect the cases of illicit money-lending and the Assistant District Registrar forwards them to the District Registrar for final disposal. In the backward areas of the district Co-operative Officer each at Chhota Udepur and Naswadi has been appointed recently by the Government.

(4) *Audit*—Section 84 of the Gujarat Co-operative Societies Act, 1961 provides for the statutory audit of every society once a year by the Registrar of Co-operative Societies or by any person authorised by him. This duty is carried out by him through the departmental as well as through the certified auditors. So far as the Vadodara, district is concerned, the work is carried out by the Divisional Special Auditor, Co-operative Societies, Vadodara, who has jurisdiction over the districts of Vadodara, Bharuch, Surat, Valsad and Dangs. He is assisted by Special Auditor, Vadodara and the Special Auditor for the central financing agency and by other non-gazetted auditors and sub-auditors at the district and taluka levels.

THE INDUSTRIES DEPARTMENT

The strategy of industrial planning has primarily been geared to attainment of the following objectives namely,

- (1) to provide requisite atmosphere of help and guidance to large industries,
- (2) to provide the necessary institutional agency for financial assistance,
- (3) to provide necessary infra-structure facilities like land, water, power and transport, etc., and
- (4) to ensure supply of inevitable inputs like raw materials so far as small industries are concerned. The Industries Department helps in achieving these objectives.

Functions of the Department

The main functions of the Department of Industries are to look after the large scale and medium scale industries, assistance to small scale and cottage industries, purchase of stores for Government departments, enforcement of the Weights and Measures Act, control and supply of raw materials for industries, issue of essentiality certificates for import of raw materials, spare components and machinery, export promotion and employment of unemployed Engineers. According to the established policy of Government, the department also assists new and developing industries in securing land, water, raw materials, power and other requirements.

It gives them technical advice and also furnishes information in respect of raw materials, processes of manufacture and industrial potentialities. It conducts research and investigation in technical problems relating to industries. Facility is also provided at Vadodara in Industrial Research Laboratory for testing and analysing of samples and imparting technical information to interested parties. It caters to the needs of the industry so far as analytical and testing work of raw materials and finished products is concerned.

Set-up of the Department

The Department of Industries is headed by the Commissioner of Industries. His Headquarters is at Ahmadabad. He works in several capacities such as the Controller of Weights and Measures, Controller of Coal and Coke and Controller of Molasses. He is the co-ordinating member in the Gujarat State Financial Corporation, the Gujarat Small Industries Corporation, the Gujarat Industrial Investment Corporation, the Gujarat Export Corporation, etc. for enforcing industrial development policies. He is instrumental in implementing the industrial policy of the State Government. Under him there are four divisions, viz., (i) Small Scale Industries Section, (ii) Development and Weights and Measures Section, (iii) Central Stores Purchase and (iv) Establishment Section. These sections are headed by one Additional Commissioner and three Joint Directors of Industries. There are Deputy Directors of Industries in control of important sub-sections like Small Scale Industries, raw materials, etc. The Deputy Director of Industries (Metric) is in charge of the metric branch and is responsible for the enforcement of the Weights and Measures Act in the whole State.

For the administrative purpose, the State is divided into four regions, viz., (i) Ahmadabad, (ii) Vadodara, (iii) Rajkot and (iv) Surat. Each of the region is headed by the Deputy Director of Industries. Besides looking after industrial development, they act as Deputy Controllers of Weights and Measures in their respective regions.

Vadodara district falls within the jurisdiction of the Deputy Director of Industries Vadodara, a class I officer. He is in charge of industrial development activities in the region which also includes other districts viz., Bharuch, Kheda and Panch Mahals.

Among the important activities carried out by the Deputy Director of Industries, Vadodara, are the issue of essentiality certificates for import of raw materials, components as well as capital goods. He issues capacity certificates to steel processing industries and foundaries for their require-

ments of steel. He also recommends to various authorities the industrial requirements of indigenous products. These units have to face many problems and finance is one of them. The Deputy Director of Industries is empowered to recommend applications for implementing the hire purchase schemes worked by the National Small Industries Corporation, New Delhi. He also recommends applications for registration to the Director General of Supplies and Disposals, New Delhi.

Set-up at the District Level

At the district level, the Industries Officer is posted at Vadodara. He is charged with number of functions which are more or less analogous to those assigned to the Deputy Director at the regional level. The Industries Officer, Vadodara is assisted by one Senior and one Junior Inspector attached to his office at headquarters. In the field work, he is assisted by one Senior and 6 Junior Inspectors.

Duties and Functions of Industries Officer

The Industries Officer is in charge of industrial development activities of the district and control of weights and measures administration. The most important function assigned to him is to look after the promotional aspect of industrial development in the district. To this end, he has to render all possible help to the parties approaching him for advice regarding the industrial potentialities such as infrastructure facilities like water, power, land, communications availability of raw materials, etc. He has to assist them in getting required raw materials, loans and machinery on hire purchase system. His administrative functions are as under :

- (1) to issue registration numbers to small scale industries situated in the district,
- (2) to register and grant electricity subsidy to small scale units consuming motive power not more than 30 Horse Power,
- (3) to submit technical reports to schedule banks in respect of small scale industries for getting advances for working capital and long term loans,
- (4) to issue certificates of investment,
- (5) to recommend to the Federation for allotment of coal to the industries,
- (6) to control weights and measures administration of the district,

(7) to investigate and report about important cases such as import licence, loan, utilisation, etc., to the Deputy Director or Industries Commissioner, as the case may be,

(8) to investigate and place before loan committee the small loan applications upto Rs. 10,000 to be obtained from the Gujarat State Financial Corporation,

(9) to disburse loans to the repatriates from Burma, Portugal and Uganda,

(10) to disburse subsidy against purchase of testing equipments,

(11) to convene the meeting of District Industrial Advisory Committee, and

(12) to issue eligibility certificates to new units established beyond 24 km., from the limits of Vadodara Municipal Corporation for sales tax exemption.

The Collector of the district is designated as Deputy Commissioner of Industries and thereby he is directly involved in development of the district. In this capacity he looks after industrial development of the district, speedy disposal of land applications for industries, local problems of industries like telephone, water supply, civil supply like kerosene, cement, etc.

The Industries Officer, Vadodara is assisted in his work at his office by two Senior Industries Inspectors, seven Junior Industries Inspectors, a Senior Clerk, seven Junior Clerks, seven Manual Assistants and other members of class IV staff.

THE OFFICE OF THE ASSISTANT DIRECTOR OF INFORMATION, VADODARA

An important function of Government in a democracy is to keep the people informed of the work of their Government in various spheres of development and administration and enable them to take advantage of the welfare schemes sponsored by the State. The Information office in the district discharges the two way function of keeping the people informed of the work of the Government in various spheres of development and activities of administration and of keeping the Government informed of the public opinion on important subjects.

State Level Set-up of the Department

The Directorate of Information, Gujarat State, Gandhinagar undertakes these functions at the State level. For smoother and more efficient

functioning of the Directorate, its working is decentralised at the district level. The Government has recognised the importance of certain areas which are very fast developing and Vadodara district in general and Vadodara city in particular, developing fast as they are, have been placed under the charge of an Assistant Director of Information, stationed at Vadodara.

Functions of the Department

The Assistant Director of Information is in charge of all works pertaining to information, publicity, mass communication and public relations in the district. He acts as a liaison between the Government offices and the press and keeps himself in touch with officers of various departments in the district. He issues to the press, news items which supply factual information on schemes and activities of the Government in the district. He also organises visits of pressmen to various development works not only in the district but also in various parts of the State as and when considered necessary and organises 'Press conferences' to provide an opportunity to the press to get first hand information and knowledge of the subject to be covered. He acts as a correspondent of the Directorate of Information and covers on its behalf working of activities and schemes of Government, Press conferences, etc. He discharges two fold functions of keeping the people informed of the work and functioning of the Government and of keeping the Government informed of the public opinion and needs and grievances of the people. Besides, he helps tourists and others visiting the district and provides them with necessary information. He issues regular press notes and hand-outs giving factual information about important schemes and activities of Government and corrects, in consultation with the department concerned, incorrect newspaper reports. He also organises exhibitions on different subjects covered by the Five Year Plans.

The Assistant Director of Information, Vadodara is a regional level officer and in addition to looking after the functioning of his office at Vadodara, supervises the working of the offices of the District Information Officers incharge of Kheda and Panch Mahals Districts, stationed at Nadiad and Godhra respectively. He also provides guidance to these officers as and when necessary.

Publicity and Rural Area

For efficient dissemination of information to the people living in rural areas, two mobile publicity vans are put in charge of the Assistant Director of Information, Vadodara. The vans are equipped with 16 mm., film projectors and petrol generators. The vans are taken round the rural areas in the district and film shows and talks which are both instructive and

entertaining are arranged on various nation-building activities like agriculture, cattle improvement, health, prohibition, eradication of untouchability, small savings, education, Five Year Plans, family planning, etc. Through the mobile publicity vans, the rural folk is kept informed of the concessions and facilities offered to them by the State and Central Governments. Besides leaflets, pamphlets, posters, etc., published by the Directorate of Information, Gujarat State, as well as Directorate of Advertising and Visual Publicity, Government of India, on topics of public interest are distributed in rural areas whenever these vans visit such areas for film shows and exhibitions.

Information Centre

An information centre is run at the office of the Assistant Director of Information, Vadodara. A large number of newspapers, magazines, periodicals, books, etc., are made available to the reading public who avail themselves of these facilities in a big way. Photographs on various development projects and schemes under Five Year Plans, small savings, family planning, etc., and charts depicting achievements and progress made in various fields of development are displayed at the Centre which serves as a useful source of information for the fast growing industrial centre of Vadodara in particular and Vadodara district in general.

Rural Broadcasting

All India Radio, Ahmadabad-Vadodara, Rajkot and Bhuj broadcasts daily in the evening programmes in Gujarati specially for rural listeners.

Radio is a medium of mass communication through which illiterate rural population gets acquainted with important happenings and developmental activities connected with agriculture, animal husbandry, etc.

The State Government have installed 576 radio sets in various villages of the Vadodara district on a contributory basis. These radio sets are looked after and maintained by an Assistant Engineer who has his office in Vadodara city.

The Assistant Director of Information, Vadodara is assisted in his work at his office by a Manager of Information Centre, an Assistant District Information Officer, a Senior Clerk, a Clerk-cum-Typist, two Junior Clerks, two Operators, a Film Joiner and other class IV workers.

THE OFFICE OF THE DISTRICT STATISTICAL OFFICER, VADODARA

The office of the Bureau of Economics and Statistics, Ahmadabad is the apex office concerned with the collection and compilation of statistical

data, so very essential for planning and development programmes of the State. It has a statistical office in each district under a District Statistical Officer who is responsible for collection and improvement in the quality of the basic statistics at district level. Some of the important activities carried out by the District Statistical Officer are publication of District Statistical Abstract, collection of data pertaining to prices, progress of Community Development Programme and Five Year Plan statistics, conduct of various socio-economic surveys, spot studies, evaluation of schemes, etc. After the introduction of the Gujarat Panchayats Act, 1961 in April 1963, District Statistical Officer is placed under the Vadodara District Panchayat. So far as the statistics of the district are concerned, he acts as a link between Government and the Panchayats. The District Statistical Officer is assisted by the Statistical Assistants at the taluka level.

The office of the District Statistical Officer, Vadodara has been entrusted with the work of collection of statistics of prices from Agriculture Produce Marketing Committees for All India Radio Ahmadabad-Vadodara, which broadcasts the same daily under the 'Integrated scheme of improvements of market intelligence.'

The District Statistical Officer, Vadodara is assisted by one Research Assistant, two Statistical Assistants and two Clerks. Besides there are 12 posts of Statistical Assistants in taluka Panchayat offices under the administrative control of the Taluka Development Officers.

PART VI—WELFARE DEPARTMENTS

CHAPTER XIV

LOCAL SELF-GOVERNMENT

INTRODUCTION

The history of local self-Government has a hoary past. The powers of village councils in ancient days were probably more extensive. The villagers themselves managed the simple affairs of the village but the States being small, there was hardly any distinction between the Central and Local Governments. Some details of local self-Government institutions are available from *Vedas* and Kautilya's *Arthasashtra*. The Government of the village was carried under the direct control, supervision and guidance of Gramani. The village council was permitted to spend a specified percentage of the revenues collected for financing its multifarious activities.

The institution of Village Panchayat which existed during subsequent periods of history of India, was not only an ancient institution but also one of paramount importance in rural culture and administration. Sir Charles Metcalfe paid glowing tribute to village institution in the following words :

"The village communities are little republics having nearly everything they want within themselves and almost independent of foreign relations. They seem to last where nothing else lasts".

But this ancient institution became a thing of the past during the British regime. The Royal Commission on Decentralisation appointed in 1907 remarked in its report :

"These villages formerly possessed a large degree of autonomy, but this autonomy has now disappeared owing to the establishment of Local, Civil and Criminal Courts, the present revenue and police organisations, the increase of communications, the growth of individualism and operation of the individual Ryotwari System".

The laws for establishment of Village Panchayats and Taluka/District Local Boards were enacted in 1869 and 1905 respectively. The bodies were created respectively with limited functions, too few resources and too little autonomy.

After Independence in 1947 the Constituent Assembly inserted the following Article as a Directive Principle of State Policy in our Constitution :

"Article 40—The State shall take steps to organise Village Panchayats and endow them with such powers and authority as may be necessary to enable them to function as units of self-Government".

The Stages and Growth of Local Self-Government Institutions

The Local self-Government bodies are the pillars of democracy. The Vadodara State had laid the foundations of Local self-Government institutions such as panchayats, municipalities and local boards. In his report dealing with the work of the Survey and Settlement Department in 1893, Mr. Elliot wrote of the scheme for the preservation of the village community. During the State regime, provision was, therefore, made for the appointment of a panchayat in every village. A fresh advance was made in 1901 when an elective system into the village panchayats with ample powers was introduced. Accordingly, rules were passed in 1902 for organising gram panchayats. In 1904, the Local Self-Government Act was passed which set-up taluka and district panchayats. They had been entrusted with the construction of roads, wells, cattle troughs, etc.

In the process of re-organisation, the taluka panchayats were discontinued subsequently and direct elections to prant panchayats were decided upon. The prant panchayat of Vadodara came into existence on 1st August, 1905 and in that form remained till the merger of the State. Thereafter an interim District Local Board took its place. Barring the municipal limits these local boards covered some 7111.87 sq. km.

MUNICIPAL ADMINISTRATION

Municipal Government is a board-based democratic administration endeavouring to provide basic facilities to the people encompassed within its area. The nature of its objectives and limited area of its operations bring municipal organisation in close and direct touch with the people, creating a climate of mutual understanding and involvement. It is for this reason, that municipal institutions are the most appropriate institutions for implementing programmes initiated at national and State levels for removal of poverty and for uplift of the standards of living of the people.

The municipal administration in the State in rudimentary form started in 1830. However, in real sense it started from 1859. For ten years municipalities functioned as State departments. In 1869, these municipalities were separated from the departments and their administration was handed over to five nominated members. In 1892, the Vadodara State enacted a Municipal Act by which the principle of election was partly introduced in the municipalities. In supersession of the 1892 Act, various Acts conferring different rights on municipalities of different classes were enacted in 1905, 1927, 1931

and 1949, and the municipalities of different categories, which acquired more and more powers step by step, continued to make notable progress. It would, therefore, be observed that even during the period of native States, the progress of the local self-Government institution in the Baroda State was remarkable and outstanding. The former State of Baroda had paid special attention towards the creation of Local self-Government institutions, and many towns in the district were covered by municipalities such as : (1) Vadodara city, (2) Dabhoi-Makarpura, (3) Sankheda, (4) Karjan, (5) Vaghodia, (6) Savli, (7) Padra and (8) Sinor. Of these Padra, Sinor, Savli, Sankheda and Makarpura were grouped in A. Rest were in B. However, according to Annual Administration Report of 1945-46, Makarpura was placed in B class.

Period from 1949-1960

With the merger of the Vadodara State with the State of Bombay in 1949, various Acts of the Bombay State were applied in place of the Baroda State. During this time there were seven municipalities in the district out of which one (Vadodara) was a Borough Municipality. During this period all the municipalities except Vadodara were governed by the Bombay District Municipal Act, 1901, while Vadodara Municipality was governed by the Bombay Municipal Boroughs Act, 1925. The jurisdiction of all the municipalities in district encompassed in an area of 108.78 sq. km. and covered a population of 2,79,840 persons according to 1951 Census. The following table shows the area and population of each municipality according to 1951 Census.

Sl. No.	Name of Municipality	Area (Sq. Km.)	Population
1	2	3	4
1	Baroda	49.21	2,11,407
2	Dabhoi	23.31	24,952
3	Chhotu Udepur	2.60	8,722
4	Karjan	15.54	6,375
	Sankheda	10.36	6,488
6	Sinor	15.54	7,101
7	Padra	12.95	14,795
	Total	129.51	2,79,840

Source : *Socio-Economic Review and District Statistical Abstract of Vadodara District, 1958-59, p. 57.*

Period from 1960 Onwards Under the Gujarat State

The State of Gujarat came into existence on 1st May, 1960. At the end of 1960-61 there were 7 municipalities covering 7 towns with a population of 3,76,904. The average population per municipality was 53,844. The Democratic Decentralisation Committee appointed by the State

Government recommended formation of gram panchayats at places having population of upto 10,000 and nagar panchayats at places having population between 10,000 to 30,000. These and other recommendations were accepted by the Government and on their basis the Gujarat Panchayats Act, 1961 was enacted. As a result 5 municipalities of Padra, Karjan, Sinor, Sankheda and Chhota Udepur were converted into gram/nagar panchayats. As Dabhoi and Vadodara had population over 30,000, no change was made into their structure. There are two nagar panchayats in the district, viz., (1) Chhota Udepur and (2) Padra. Municipalities in Gujarat are now being governed by the Gujarat Municipalities Act, 1963 enforced with effect from 1st January, 1965. The Act provides for elected councillors and reservation of seats for women, Scheduled Castes and Scheduled Tribes. Every municipality is vested with functions relating to the provisions of water supply, drainage, lighting, disposal of night-soil and rubbish, medical aid, care of the sick particularly at the time of out break of epidemics, extinguishment of fires, protection of life and property of the people and the registration of vital statistics.

The Act empowers a municipality to levy taxes on buildings, lands, vehicles, water supply and drainage, lighting etc., octroi on animals or goods, sanitary cess and special cess on education.

The table given below indicates number of local bodies from 1961-62 to 1970-71.

Year	No. of district Panchayat/ District Local Board	No. of Taluka Panchayats	No. of Gram Panchayats	No. of Nagar Panchayats	No. of Municipi- Palities	No. of Municipal Corporation
1	2	3	4	5	6	7
1961-62	..	1*	..	735	..	7
1962-63	..	1*	..	775	..	7
1963-64	..	1	12	775	2	2
1964-65	..	1	12	775	2	2
1965-66	..	1	12	776	2	2
1966-67	..	1	12	776	2	1
1967-68	..	1	12	776	2	1
1968-69	..	1	12	777	2	1
1969-70	..	1	12	778	2	1
1970-71	..	1	12	778	2	1

*District Local Board.

Source :

1. Director of Municipalities, Gujarat State, Ahmadabad.
2. Development Commissioner, Gujarat State, Ahmadabad.
3. Bureau of Economics and Statistics, Gujarat State, Ahmadabad.
Extracted from *District Census Handbook, Census 1971, Part X-C-1, Vadodara.*

After reviewing the progress of local bodies it would be pertinent to analyse the role of municipalities and panchayats in detail as they are the principal organs.

THE BARODA MUNICIPALITY

The Municipality of Baroda is the oldest. It began its work within the city walls in 1830 A. D. and extended its area of operation beyond these limits in 1859. The first fire engine was purchased in 1862. The limited municipal administration was carried on by a small committee where different city interests were fairly represented.

After the Municipal Act of 1892, the principle of election was introduced in the Baroda Municipality. Later on the constitution of the Baroda Municipality during the State regime was based on the Act of 1905 which separated the executive and the deliberative functions, conferred considerable financial powers, and increased the elected members from half to two-thirds. Thereafter, its powers, responsibilities and privileges were extended, and it elected its own president. Except for such matters and taxation, making rules and bye-laws, the municipality enjoyed independent powers. These Acts removed the anomaly of 'representation without taxation.' Now the Suba of the Baroda district became *ex-officio* President of the municipality.

DISTRICT MUNICIPALITIES

The district municipalities came into existence in 1877 in the district,¹ before which date there was nothing of the kind. In that year municipalities were established in the most of the taluka towns with simple rules for their working. A Municipal Act based on the Bombay Municipal Act III of 1901 was passed in 1905 and brought into force from the 1st of February, 1906. It classified municipalities into 'A' and 'B' according to their size, importance and fitness for Local self-Government. The proportion of elected members differed slightly in these two and the presidents in both the cases were government officials. From 1939, however all the 'A' and some of 'B' class municipalities, were allowed to elect their presidents.

VADODARA MUNICIPAL CORPORATION

The Vadodara Municipality with elected majority was formed in 1906 and was converted into a Corporation from 1st April, 1966. Upto 31st March, 1966 the work of the municipality was carried on in accordance with the Gujarat Municipalities Act, 1963. After the formation of the Corporation its work is carried on in accordance with the Bombay Provincial Municipal Corporation Act, 1949. According to 1971 Census, the municipal limits admeasures 78.13 sq. km. with a total population of 4,66,696 persons. There are in all 51 members, with reservation of 2 seats for Scheduled Castes.

¹ DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol II, (1923), p. 237.

The Corporation discharges its functions through the following committees, viz.,

- (1) The Public Works Committee,
- (2) The Drainage and Sewage Committee,
- (3) The Recreational and Cultural Committee,
- (4) The Electric Committee,
- (5) The Legal Committee,
- (6) The Town Planning Committee,
- (7) The Water Works Committee,
- (8) The Gas Committee,
- (9) The Health Committee and
- (10) The City Improvement Committee.

The Commissioner is the executive head of the Corporation. At present the Corporation has been superseded.

The Statement XIV-1 shows the composition of Vadodara Municipal Corporation in 1961, 1966 and 1971. In 1961, it was a municipality with 45 seats. Two seats were reserved for the Scheduled Castes and five for women. In 1966 and 1971 the total number of seats was 51 with two reserved seats for Scheduled Castes. The number of elective wards is 17 with 6 zones, including 10 villages within its limits.

STATEMENT XIV-1

Composition of Vadodara Municipal Corporation 1961, 1966 and 1971

Sl. No.	Name of Municipality	Year	Total No. of seats	Number of seats Reserved for			Number returned against unreserved seats		
				Scheduled Castes	Scheduled Tribes	Women	Scheduled Castes	Scheduled Tribes	Women
1	2	3	4	5	6	7	8	9	10
1.	Vadodara ..	1961	45	2	..	5	..	..	..
	Municipal Corporation	1966	51	2	..	..	..	..	..
	Corporation	1971	51	2	..	..	..	..	1

Note : In 1961 there was a Municipality in Vadodara.

Source :

1. Municipal Corporation, Vadodara.

Extracted from *District Census Handbook*, Census 1971, Part X-C-1, Vadodara District.

Income and Expenditure

During the year 1969-70, the total income of the Corporation excluding the opening balance was Rs. 60,281,000 and the total expenditure Rs. 52,129,000 as seen from the Statement XIV-2.

STATEMENT XIV-2 Income and Expenditure of Vadodara Municipal Corporation, 1969-70

(IN THOUSAND RUPEES)															
Income - 1969-70															
Sl. No.	Name of Municipal Corporation	Total income excluding opening balance	Rates and taxes	Realisation under special Act and Properties	Interest receipts	Grants and loans	Income from Commercial Enterprises	Miscellaneous	Expenditure - 1969-70						
1	2	3	4	5	6	7	8	9	10	11	12	13	14		
1	Vadodara	60,281	21,247	3,578	1,007	17,768	800	15,881	Public hospitals and other ancillary-public facilities	Service and Public-Utilities	Public hospitals and other ancillary-public facilities	Grants and interest payment	Expenditure for Commercial Enterprises	Extraordinary Expenditure and debts	Miscellaneous
1	Vadodara	..	..	..	..	..	..	..	370	9,094	370	2,500	..	16,767	8,944

(1) Total No. of Members : 51.

(2) Population of Municipal Corporation limit : (1971) 4,66,696.

(3) Limit of Municipal Corporation Area (in Sq. Km.) : 78.13.

Source : Extracted from Census 1971, Part X-C-1, *Departmental Statistics and Full Count Census Tables*, Vadodara District, p. 39.

Roads

The total length of roads maintained in the year 1972-73 by the municipality was 373.87 km. of which metalled roads claimed 2.25 km., *Kutchia* roads 124.66 km. and asphalt roads 246.96 km.

Conservancy and Drainage

The Corporation in 1972-73, employed 918 scavengers and sweepers, who cleaned about 373.87 km. of surface roads twice a day. The Corporation has provided 441 dust-bins. The Corporation maintained 364 latrines and urinals. There is underground drainage system existing since 1894 A. D. The first primary treatment plant was constructed in 1957. Sewage from small sections and from different areas of the city is collected through number of auxiliary pumping stations and is brought to the treatment plant. As the city developed industrially after Independence, a master plan was prepared for sewage schemes of the city, keeping in view the requirements of 1991 A. D., as per national standard.

Public Safety

The Corporation maintained in 1972-73, 11 fire fighters and two trailers. The staff consisted of 1 Chief Officer, 2 Station Officers and 64 Sainiks (firemen).

Street-Lighting

In 1972-73, there were 8,597 lights of which 2,875 were ordinary lights, 4,950 tube lights, 47 mercury lights and 725 other lights.

Gardens

The Corporation maintained 21 gardens. It has provided two radio sets each at Jubilee Baug and Surya Narayan Baug. These gardens were specified gift of late Sayaji Rao-III.

Markets

The Corporation maintained 4 vegetable markets, viz., (i) Khanderao market with 76 stalls, (ii) Wadi market with 69 stalls, (iii) Kadak Bazar market with 13 stalls and (iv) Sadhananagar with 9 stalls. The Corporation also maintained 14 meat markets each having 9 stalls. The rent realised during 1972-73 from all the markets was Rs. 1,77,227.

Education

The municipality has taken over the responsibility of primary education from 9th November, 1953. The Corporation runs 118 primary schools.

Housing

The Vadodara Municipal Corporation has taken a keen interest in the housing problem of the city. There are number of schemes which the Corporation has undertaken on hand. The Corporation has constituted the City Improvement Committee headed by the Mayor with full powers. The Schemes are : (1) Central Subsidy-cum-Loan Scheme for slum dwellers, (2) Housing Scheme for economically weaker sections, low income group and middle income group, (3) scheme of giving basic facilities to eight backward areas, (4) construction of shopping centres and (5) construction of 'ren basera' (night shelters).

(1) *Central Sub-cum-Loan Scheme*—Under the scheme 2,000 quarters are to be constructed and allotted to weaker sections and slum dwellers. The Corporation has decided to make slum dwellers the owners of the tenements after the payment of the cost. Till 1971-72, 624 quarters were constructed and 336 were under constructoin.

(2) *Housing Scheme for Economically Weaker Sections, Low Income Group and Middle Income Group*—On a plot of 40 acres of land at Tarsali on the eastern outskirts of the city, the Corporation has planned to develop a big township to house economically weaker sections, low income group and middle income group with amenities like, school, hospital and the community centre. The scheme is estimated to cost around Rs. 2 crores which is to be obtained on loan.

Another novel idea of the Corporation is to provide to such economically weaker sections as are not likely to be displaced within next 10 years by providing structure of 18' × 10' upto plinth level and roof over the same by supporting vertical props leaving the option to cover the site to the dweller as he likes.

Water Supply

The Corporation has achieved self-sufficiency in 1971-72 as regards water supply by implementing the ambitious Mahi River Water Supply Project and tube-well projects and also by raising the water level at Sayaji Lake. The Municipal Corporation is giving 45.4596 litres of water per head

per day to the citizen of Vadodara. The total quantity of filtered water supply is 5,21,33,163, litres. The total number of water connections are 32,510. With a view to supplying water to the poor and lower middle classes of the city, the Municipal Corporation has put into execution free water connection scheme. Under this scheme, a citizen living in a tenement whose yearly assessment is Rs. 600 or less, can have a water connection for his tenement free of cost. To date, (1971-72) about 5,000 connections have been given and 2,000 are likely to be given by the end of 1974.

Nutritional Programme

Under the Central Government Scheme, the Municipal Corporation has initiated nutritional programme for children in the city since 1970. Under the scheme, 146 centres have been opened in poverty-stricken residential areas of the city and 34,000 children upto six years get 200 ml. of double-toned milk and 32 gm. of bread. A regular medical check-up is planned to ascertain the improvement in the health of children. 2,000 pregnant women also have been covered under the above scheme. The scheme for mid-day meal for primary school-children covering about 40,000 children, and 1,600 pre-primary school children was started under the patronage of the UNICEF in 1970.

Under another scheme having an outlay of Rs. 10 lakhs which is assisted by the Catholic Relief Services, the school children get 125 ml. of milk and 200 gm. of bread.

Distribution of Natural Gas

The first venture in the country for distribution of natural cooking gas to urban consumers has been taken up by the Municipal Corporation. The project will cost the Corporation about Rs. 2.75 crores. It will cater to the needs of about 30,000 consumers.

The Corporation has actively supported and participated in the development of Makarpura Industrial Estate by providing infrastructural facilities like water supply, drainage, roads, and electrical power besides constructing godowns, canteen and a chemical centre.

DABHOI MUNICIPALITY

The Dabhoi Municipality was established in 1904, during the time of former Vadodara State. At present, the municipality is governed by the Gujarat Municipalities Act, 1963. There are in all 25 members out of whom two are from the Scheduled Castes and two from the Scheduled Tribes respectively. For women also two seats are reserved.

The Municipality discharges its functions through the following committees, viz.,

- (1) The Executive Committee,
- (2) The Public Works Committee,
- (3) The Sanitary Committee,
- (4) The Octroi Committee,
- (5) The Shops and Establishments Committee,
- (6) The Light Committee,
- (7) The Legal Committee, and
- (8) The Recreation and Culture Committee.

Income and Expenditure

During the year 1969-70, the total income of the municipality was Rs. 30,93,000 and the total expenditure Rs. 23,06,000 as seen from the Statement XIV.3.

STATEMENT XIV-3
Income and Expenditure of Dabhoi Municipality, 1969-70

(Rs. in '000)									
(Classification of Members)									
Reserved									
Sl. No.	Area within municipal limits (in sq. km.)	Population within municipal limits 1971	Total seats including nominations	Reserved				Non-Reserved	Total
				Nominated	Women	Scheduled Castes	Scheduled Tribes		
1	2	3	4	5	6	7	8	9	10
1	23.82	37,892	25	..	2	2	2	19	25
									3,093
									11
									10
									25
									3,093

Expenditure Incurred									
Income Derived from									
Rates and Taxes	Realisation under Special Acts and properties	Grants and contribution for General purposes	Miscellaneous	Total Expenditure (excluding opening balance)				Contribution for General purposes	Miscellaneous
				General Administration and collection charges	Public safety	Public health and conveyance	Education		
12	13	14	15	16	17	18	19	20	21
862	27	443	1,761	2,306	145	59	730	35	1,337

Source : Annual Administration Report 1969-70, Published by Panchayats and Health Department.

Water Supply

The present water supply scheme came into existence after merger of the State in the Bombay State. The water works was started in 1964. It has a capacity of 50,000 gallons per hour. The municipality itself operates water works and supplies every day 20 gallons of water per head. The total cost of construction of this water works was Rs. 22 lakhs.

Roads

The total length of roads maintained by the municipality is 36.06 km., of which asphalted roads claim 8.63 km., cement roads 0.05 km., metalled roads 5.00 km., and unmetalled roads 22.37 km.

Conservancy and Drainage

The municipality employed in 1972-73, 97 sweepers. At present underground drainage is under construction. The municipality collects daily two truck load of refuse. Two pucca dust-bins have been provided in addition to one motor truck which are used for removal of refuse. Refuse is used for preparation of compost manure.

Public Safety

The municipality maintains two fire fighters to extinguish fire. One fireman and other municipal labourers are called upon to do the job. The annual expenditure incurred is in the neighbourhood of Rs. 5 to 6 thousand.

Street-Lighting

Street lighting in the town of Dabhoi is carried out by contract with a private electric supply company. Till March, 1974 there were 872 lights out of which 9 were mercury lights and 863 were ordinary lights. The annual expenditure in the same year was Rs. 25,000.

Gardens

Two gardens are being maintained by the municipality.

Education

The municipality has taken responsibility of primary education from 1967. There are in all 12 schools run by the municipality, out of which 3 are English-medium schools. It contributes 34 per cent of total expenditure towards Primary Education.

Markets

The municipality maintains one vegetable market. In 1973-74 its annual income was Rs. 2,080.

*TOWN PLANNING**Town Planning Activities in Former Baroda State*

During the Baroda State regime, Maharaja Sayajirao III had been a great builder. From the commencement of his reign it had been one of his special care to provide suitable buildings for public offices of all kinds; many of them have considerable architectural beauty. From 1881 to 1891, the first decade of his personal rule, the total expenditure on public works amounted to Rs. 1,67,36,606 giving an annual average of Rs. 16,73,600. Those were the years in which materials and labour were comparatively very cheap. Subsequently town planning activities in the State were carried out under the Baroda State's Town Improvement and Planning Act, 1925. Apart from the public buildings, the State had taken profound interest in the layout of Vadodara city.

In 1949 the State was merged in Bombay State. With the merger of the Baroda State in the Bombay State, the Bombay Town Planning Act, 1915 was made applicable to it. However, under this Act no town planning schemes were framed. Moreover, as the preparation of Master Plan was not obligatory on the part of the local authority, the town planning schemes did not progress during the First Five Year Plan. In order to remedy this situation, the Bombay Town Planning Act, 1954 was enacted. The new Act came into force from 1st April, 1957. Under this Act it was made obligatory on the part of every local authority to prepare a development plan of the area within its jurisdiction within 4 years from 1st April, 1957. After the formation of the Gujarat State, the need of a uniform legislation for all the three constituent units of Gujarat State, viz., Gujarat, Saurashtra and Kachchh was felt and the Bombay Town Planning Act, 1954 was, therefore, amended by the Bombay Town Planning (Gujarat Extension and Amendment) Act, 1967.

The Town Planning and Valuation Department in the Gujarat State Performs manifold activities in sphere of both the town planning and valuation of lands and buildings and provides consultancy services to the Government. Since most of the local authorities have no technical staff of their own, the Department prepares development plans for such local authorities also.

Since the formation of Gujarat State, the development plans were prepared by the departmental authority for Dabhoi, Karjan, Sankheda, Padra, Savli and Vaghodia.

Development Plan of Vadodara City

The preliminary work undertaken during First Five Year Plan and finalised afterwards was sanctioned by the Government on 21st September, 1970 and it came into force from 1st December, 1970. Under the plan, the total cost of reservation of sites made for schools, shopping centres, gardens, play-ground, town centres, etc., is estimated at Rs. 3.90 crores. It also provides for the reservation of sites for the revenue staff, the police headquarters and the State transport workshop, etc.

It may be pointed out that considerable time elapsed between the date of starting the development plan which was 27th June, 1969 and the date of approval which was September, 1970. The local authority has stated that on 20th June, 1969 the Vadodara municipality had resolved to prepare a development plan for the areas within its jurisdiction which was at that time 25.90 sq. km. However, before development plan took final stage the limits of the Vadodara city was extended to 75.11 sq. km. Therefore, according to the provision of the Act, municipality was again required to issue declaration of its intention. In other words the original work of the plan started from 1964 onwards. After publishing the plan the objections were invited from the public on 29th April, 1967. The plan was finally submitted to the Government in 1967. Furthermore in the Bombay Town Planning Act it is specified that if after the approval of Government modifications have been made, Government is required to publish such modifications for inviting objections from the public and after considering suggestions and objections received from the public, Government has to finalise the development plan. Accordingly, the development plan was sanctioned in September, 1970. From the foregoing narration it would be observed that real work of preparation of development work was started during Third Five Year Plan only.

Town Planning Scheme for Vadodara City

The Vadodara Municipal Corporation has so far prepared about eleven Town Planning Schemes for the different parts of the city and they are on way to finalisation.

Development Plan of Karjan

The preliminary work regarding the preparation of Development Plan of Karjan was taken on hand during Third Five Year Plan. It has been sanc-

tioned by the Government on 16th July, 1970, and it came into force from 1st October, 1970. Lands have been reserved for schools, play-ground, town centres, etc., under the plan at an estimated cost of Rs. 3,26,000. The reservations of plots for S. T. Workshop, Revenue Staff, etc., are also made under the plan. Moreover, there are four town planning schemes with Town Planning Officer for finalisation in area of Development Plan of Karjan. The Karjan Municipality has prepared two town planning schemes for the different localities of Karjan town.

Development Plan of Sankheda

The preliminary work regarding the preparation of Development Plan of Sankheda was taken on hand during the period of Fourth Five Year Plan. It was sanctioned by Government on 30th April, 1973 and it came into force from 1st June, 1973. Under the Plan, the reservation for site of N. C. garden and other purposes have been made at an estimated cost of Rs. 19,376.

Development Plan of Vaghodia

The preliminary work regarding the preparation of Development Plan of Vaghodia was undertaken under the yearly plan of 1966-67 and it was sanctioned by Government on 15th January, 1969 and came into force from 1st March, 1969. The reservations for schools, garden, play-ground, etc., have been made at an estimated cost of Rs. 1,11,700.

Development Plan of Dabhoi

The preliminary work regarding the preparation of the Development Plan of Dabhoi was taken on hand during the Third Five Year Plan. The Development Plan was sanctioned by Government on 1st January, 1966 and it came into force from 1st March, 1966. Under the plan, the total cost of reservation of sites for school, garden, play-ground, etc., was estimated at Rs. 4,49,500.

Development Plan of Padra

The preliminary work regarding the preparation of the Development Plan of Padra was taken on hand during the Second Five Year Plan. The development plan was sanctioned by Government on 29th January, 1966 and it came into force from 1st April, 1966. The reservation of sites for schools, garden, play-ground, etc., have been made under plan at an estimated cost of Rs. 21,01,400.

Development Plan of Savli

The preliminary work regarding the preparation of Development Plan of Savli was undertaken at the end of the Third Five Year Plan. It is under preparation by Assistant Consulting Surveyor to Government, Vadodara on behalf of Savli Gram Panchayat.

LOCAL BOARDS

In the Baroda State, the Taluka and District Local Boards came into existence in 1904, under the Local Self-Government Act of 1904. Their roles are examined below.

Taluka Boards

By this Act, it was provided that all the villages in taluka should be divided into a number of groups from each of which a member should be returned to the taluka board. The total number varied in different talukas according to area and population. Out of the total number of members two-third of the members were to be elected and only one-third were to be nominated. Of the nominated members half were *ex-officio* members and other half represented the interests of the minorities. An official element was included in the personnel of the taluka boards. Each municipality in the taluka had the privilege of choosing a member. The Naeb-Suba of the Sub-division was the president and the vice-president was to be elected by the members from among non-official members.

District Board

The Act also made specific provisions for the election of members to the District Board. It was provided that each Taluka Board within the district shall elect one or more members to the District Board. Similarly each municipality with a population of over ten thousand, should also send a member. One member was to be elected by alienated villages. Together they constituted not less than one-half of the total number. The other half was to be nominated by Government and among nominated members, not more than one half were to be Government Servants. The District Officer was to be the Chairman of the Board.

The Baroda Prant Panchayat came into existence on 1st August, 1905. In all, sixteen members were elected and seventeen were nominated. Of the nominated members, not more than half were Government Servants. It must, however, be pointed out, that Government of Baroda State in 1924-25 in deference to the wishes of people allowed them to elect Chairman for Baroda Prant Panchayat instead of *prant suba*. The first Chairman was Shri Tulsibhai Bakorbhai Amin.

Functions of Taluka and District Boards

The duties vested in Taluka Boards and District Boards were construction of roads, tanks, wells and water works, the management of *dharmashalas*, dispensaries and markets, the supervision of vaccination, sanitation, primary education and agriculture, the undertaking of relief measures on a small scale in times of famine, and other public duties which were entrusted to them from time to time. The proceeds of the local cess and such other funds as may be assigned for the purpose from time to time by the Baroda State Government were to be devoted to the performance of these works. The Taluka Boards were subsequently dissolved but the District Local Board was continued.

DISTRICT LOCAL BOARD

In the Bombay State the Vadodara District Local Board was constituted on 1st August, 1950. Total income and expenditure of the Board during 1960-61 were Rs. 14,21,759 and Rs. 20,66,518 respectively. The main sources of income were civil works, local rates and land revenue and the major heads of expenditure were civil public works, medical and education. The following table shows income and expenditure of the District Local Board during 1960-61 under different heads.

Income and Expenditure of District Local Board, 1960-61

Head	Income (in Rs.)	Head	Expenditure (in Rs.)
Land Revenue ..	153,329	Refunds	136
Local rates ..	365,016	Administration	75,027
Interest ..	96,690	Education	124,582
Medical ..	8,987	Medical	90,763
Miscellaneous ..	74,030	Pension	8,224
Irrigation and Minor works, ..	1,107	Miscellaneous	12,006
Civil Works ..	722,600	Civil Public Works	1,755,780

VILLAGE PANCHAYATS

In the former State of Baroda steps were taken since 1893 A. D., to preserve the self-Government in the villages. Panchayats were constituted in villages, and entrusted with some powers and duties. They were also provided with funds.

The State enacted Gram Panchayat Rules in 1902. These rules provided that every village with a population of one thousand or more should have panchayat of its own. In course of time a number of amendments and modifications were made and it was thought desirable to draft a fresh Act to include all these. Accordingly a new Village Panchayat Act, 1920, was passed. This Act laid special emphasis on elective principle. Membership was increased from a minimum of 5 to 9 and from a maximum of 9 to 12. Two third of the members were to be elected by villagers. The President may be and in practice then frequently was chosen by the people.

After the merger of Baroda State into former Bombay State, the panchayats were governed by the Bombay Village Panchayats Act, 1933. This Act was subsequently replaced by the Bombay Village Panchayats Act, 1958. The Bombay Village Panchayats Act, 1958 is described below.

The Bombay Village Panchayats Act, 1958

After the formation of bilingual Bombay State, as there were different Acts prevalent in different areas, a new Act called the Bombay Village Panchayats Act, 1958 was enacted. Under this Act, a District Village Panchayat Mandal was constituted for the district, for exercising powers of supervision, guidance and control over panchayats in the district. In order that the representatives of village panchayats may have an effective voice in shaping the policy in regard to matters concerning village panchayats, seven to twelve members were elected to the *mandal* by Sarpanchas, in the district from amongst themselves.

DEMOCRATIC DECENTRALISATION

After the formation of Gujarat State on 1st May, 1960, the concept of Democratic Decentralisation gained momentum and it led to the enactment of Gujarat Panchayats Act, 1961.

In the First Five Year Plan, the role of local bodies in the implementation of development programmes was emphasised. It indicated that the general policy of Government should be to encourage them to assume responsibility for as large a portion of administrative and social services within their areas, as possible. As these local bodies depended mostly upon Government grants which were subjected to various conditions and restrictions, their activities were too limited to produce any discernible impact on the rural areas. As a result, the real object underlying the formation of local self-Government institutions was frustrated.

The proposals of the Planning Commission for the Second Five Year Plan stressed the needs for creating within the district a well-organised

democratic structure of administration in which the village panchayats were to be organically linked with central organisations at a higher level. In such a structure, the functions of the popular body would include the entire general administration and development of the areas, other than such functions as law and order, administration of justice and certain functions pertaining to the revenue administration. In this background the Balwantrai Mehta Committee was appointed to go into the question of the working of Community Projects and National Extension Service. After detailed inquiries, the Committee came to the conclusion that community development could not progress without responsibility and power which would be possible only under a process of democratic decentralisation from a village to the district level. The committee further held that community development could be real only when the community realises its responsibilities, exercises its necessary powers through its chosen representatives and maintains continuous interest in local administration. With this object in view, it recommended an early establishment of statutory elective local bodies which alone could lead to effective rural development. It also recommended that necessary resources, powers and authority should be vested in such bodies. In effect, the Committee recommended that if the experiment of democratic decentralisation were to yield maximum results, it was necessary that all the three tiers of the scheme, viz., Village Panchayat, Taluka Panchayat Samiti and Jilla Parishad should be started at the same time and operated simultaneously in the whole district. In May, 1958, the National Development Council accepted those recommendations of the Committee with regard to the "democratic institutions functioning either at the village level or at the block or taluka level or the district level and that the process of democratisation should be completed as speedily as possible. As agreed in the meeting of the Standing Committee of the National Development Council in January, 1958, the pattern of democratisation was worked out by the State Governments in the light of their own conditions and requirements. As a consequence, the Government of Gujarat appointed a committee in July, 1960, under the chairmanship of the then Revenue Minister to study this question and to make recommendations. The Committee submitted the report on 31st December, 1960. Its recommendations were incorporated in the Gujarat Panchayats Act, 1961 which provided for a three tier system, viz., the gram/nagar panchayats which were already in existence at the lowest level, the taluka panchayats at the taluka level and the district panchayats at the district level. This democratic decentralisation came to be subsequently called the Panchayati Raj.

THE GUJARAT PANCHAYATS ACT, 1961

The Panchayati Raj was ushered in the districts of Gujarat on April 1, 1963 when taluka and district panchayats providing the middle tiers of the democratic decentralisation scheme were formally inaugurated. The

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introduction of the scheme which vests the elected bodies at all levels with wide powers and provides them with necessary funds and trained administrative personnel was completed with the formation of the State Panchayat Council on May 1, 1963.

The Gujarat Panchayats Act, 1961 has been amended recently. In April, 1973, the Gujarat Assembly passed the Panchayats (Amendment) Bill. This Bill sought to reform the institutional set up of the Panchayats in the State, on the recommendations of Shri Jhinabhai Darji Committee. It provides for sweeping changes in the election pattern of panchayats. It provides for the direct election of village Sarpanch instead of the present method of electing the Sarpanch by village panchayat members. It seeks to do away with the practice of *ex-officio* and co-opted members of the panchayats at the village, the taluka and the district levels. As a result, the village Sarpanchs and taluka panchayat Presidents will be automatically debarred from becoming *ex-officio* members of the taluka and district panchayats, respectively. This will affect village Sarpanchs who used to become *ex-officio* members of panchayats. The amended Act also seeks to provide more representation on panchayats to women and proportionate representation to Adivasis and Harijans. Another significant provision in the amendment is provision of setting up of social justice committees at all levels to safeguard the interest of weaker sections of the society. These changes are incorporated at the appropriate places.

The Gram Sabha

All adult persons whose names are included in the voters list maintained for a gram shall be deemed to constitute a Gram Sabha of the gram. A Gram Sabha has to hold annually at least two meetings, provided that the Sarpanch may at his option and if required by taluka panchayat or district panchayat may call a meeting of the Gram Sabha. It has to consider annual statement of accounts, administration report, development and other programme of works and the audit notes and replies thereto and any other matter which the taluka panchayat or district panchayat, may require to be placed before the meeting of the Gram Sabha.

The Gram Sabha is required to carry out such functions as prescribed in the Gujarat Gram Panchayats (Gram Sabha Meetings and Functions Rules, 1964.

The Gram Panchayat/Nagar Panchayat

A gram panchayat is constituted for a local area, the population of which is less than 10,000 and a nagar panchayat is constituted for a local area, the population of which normally exceeds 10,000 but does not exceed

20,000. Such a local area may be a revenue village, or a group of revenue villages or hamlets forming part of a revenue or such other administrative unit or part thereof. The number of members of a gram panchayat varies from 7 to 15 and that of a nagar panchayat from 15 to 21. By the recent amendment, the Sarpanch is to be elected by ballot by the qualified voters of the *gram* from amongst themselves and the Upsarpanch shall be elected by the members of gram panchayat from amongst themselves and a nagar panchayat will elect a Chairman and Vice-Chairman from its own members.

Provision is made for reservation of seats for women in the following manners :

- (i) two seats where the total number of seats does not exceed seven,
- (ii) three seats where the total number of seats exceeds seven but does not exceed eleven, and
- (iii) four seats where the total number of seats exceeds eleven.

provision is also made for one seat for a members of the Scheduled Castes and one seat for the Scheduled Tribes in every *gram* panchayat. In addition to allotment of one reserved seat for the Scheduled Castes, more seats are allotted on the basis of their population in the gram/nagar panchayat. Provision is also made for the reservation of seats for the members of the Scheduled Tribes on population basis. In case of representation of women in the nagar panchayat following amendment is made : Four seats where the total number of seats does not exceed eighteen and five seats where the total number of seats exceeds eighteen shall be reserved for women.

Duties of a gram/nagar panchayat are specified in the Act. If the funds permit, the gram/nagar panchayat has discretion to take up certain other activities such as education, medical relief, promotion of social, economic and cultural well-being of the inhabitants of its areas and arranging public receptions, ceremonies or entertainments within its jurisdiction.

Statements XIV-4 and XIV-5 show the composition of gram panchayats and nagar panchayat as on 1st January, 1971.1

1. The data about composition of gram / nagar, taluka, and district panchayats is according to the provisions of Gujarat Panchayats Act, 1961, before it was amended in 1973.

STATEMENT

Composition of Gram Panchayats

Sl. No. 1	Taluka 2		No. of Gram Panchayats 3	No. of members appointed under Section 12(1) of the Gujarat Panchayats Act 4	Composition							
					Non-reserved seats 5	Wo-men 6	Reserved Seats					Total elected mem bers (5 to 9) 11
							Sche-duled Castes 7	Sche-duled Tribes 8	Total (6 to 8) 9	Total seats (5 to 9) 10		
1	Sinor	..	40	374	152	80	50	92	222	374	150	
2	Vaghodia	..	56	530	241	112	57	120	289	530	240	
3	Savli	..	94	902	540	188	96	78	362	902	449	
4	Naswadi	..	52	472	296	104	25	47	176	472	292	
5	Karjan	..	82	758	335	164	95	164	423	758	319	
6	Chhotu-Udepur	..	71	716	500	144	47	25	216	716	485	
7	Dabhoi	..	70	655	280	140	83	152	375	655	280	
8	Tilakwada	..	37	335	190	74	31	40	145	335	190	
9	Vadodara	..	74	734	445	148	76	65	289	734	285	
10	Jahugam	..	63	628	372	126	58	72	256	628	345	
11	Padra	..	66	658	427	130	81	20	231	658	412	
12	Sankhoda	..	73	705	352	146	77	130	353	705	345	

Source :

1. District Development Officer, Vadodara.
2. Taluka Development Officers of Vadodara District.

Extracted from *District Census Handbook*, Census of India, 1971, Part X-C*1, Vadodara District.

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XIV-4

As on 1st January, 1971

Non-Reserved		Seats Elected- members				Nominated Members			Total Elected Members		Total Nominated members	
Nomi-nated Members 12	Total- (11 to 12) 13	Women 14	Sche-duled Castes 15	Sche-duled Tribes 16	Wo-men 17	Sche-duled Castes 18	Sche-duled Tribes 19	Male 20	Fe-male 21	Male 22	Fe-male 23	
2	152	80	50	92	..	..	..	292	80	1	1	
1	241	108	52	114	4	5	6	406	108	12	4	
91	540	173	86	76	15	10	2	611	173	103	15	
4	296	100	22	31	4	3	16	345	100	23	4	
16	335	152	87	150	12	8	11	556	152	38	12	
15	500	141	45	18	3	2	7	548	141	24	3	
..	280	140	83	152	..	..	..	515	140	..	..	
..	190	74	31	40	..	..	..	261	74	..	..	
7	292	128	68	61	20	8	4	414	128	19	20	
27	372	105	44	43	21	14	29	432	105	70	21	
15	427	120	74	20	10	7	..	506	120	22	10	
7	352	141	72	127	5	5	3	544	141	15	5	

STATEMENT

Composition of Nagar Panchayats

[illegible]

Source :

1. District Development Officer, Vadodara.
2. Taluka Development Officers of Vadodara District.

Extracted from *District Census Handbook, Census of India 1971, Part X C-1, Vadodara District.*

XIV.5

As on 1st January, 1971

[illegible]

Taluka Panchayats

The taluka panchayats under the amended Act, shall consist of elected and associate members. The number of elected members of a taluka panchayat will depend on the population of the taluka and such members will be elected from the qualified voters. The number of members vary from 15 to 31; 15 where the population of the taluka does not exceed sixty thousand, 19 where it does not exceed one lakh, 23 where it does not exceed one and half lakhs, 27 where it does not exceed two lakhs and 31 where it exceeds two lakhs. Out of the total number of seats, following provision is made for reservation of seats, for women: (i) three seats where the total number of seats is fifteen, (ii) four seats where the total number of seats is nineteen, (iii) five seats where the total number of seats is twenty three and (iv) six seats where the total number of seats is either 27 or 31. Provision for reserved seats for Scheduled Castes and Scheduled Tribes are made in the following manner:

(a) for the Scheduled Castes, such number of seats as may be determined by the State Government so that the number of seats so determined bears, as nearly as may be, the same proportion to the number arrived at by deducting from the total number of seats specified in sub-section (3) the number of seats reserved for women under clause (a) as the population of the Scheduled Castes in the taluka bears to the total population of the taluka;

(b) for Scheduled Tribes, such number of seats as may be determined by the State Government so that the number of seats so determined bears, as nearly as may be, the same proportion to the number arrived at by deducting from the total number of seats specified in sub-section (3) the number of seats reserved for women under clause (a) as the population of the Scheduled Tribes in the taluka bears to the total population of the taluka;

Provided that the reserved seats may be allotted by rotation to different constituencies in a taluka in the prescribed manner.

The following shall be the associate members of a taluka panchayat namely:

(i) Members of the Gujarat Legislative Assembly elected from any constituency in the taluka or part thereof;

(ii) Presidents of all municipalities within the revenue taluka or mahal and where any administrator or person has been appointed to perform the functions and exercise the powers of any such municipality, such administrator or person;

(iii) a representative of the District Co-operative Union of the district in which the taluka panchayat is functioning, nominated by the Managing Board of the Union;

(iv) a representative of the District Co-operative Bank of the district in which the taluka panchayat is functioning nominated by the Managing Board;

(v) One such representative of the Taluka Co-operative Purchase and Sale Union or of an agricultural produce market committee in the taluka, nominated by the State Government;

Provided that the representatives to be so nominated under clauses (iii) to (v) shall be persons ordinarily residing in the taluka.

An associate member of the panchayat shall have the right to speak or otherwise take part in the proceeding of the panchayat or of such committee of the panchayat as may be prescribed but he shall not be entitled to vote in any such proceedings.

The functions of the taluka panchayat as scheduled in the Act related to sanitation, health, education, culture, social education, community development, agriculture, irrigation, animal husbandry, village and small scale industries, co-operation, women's welfare, social welfare, rural housing, pastures and relief against natural calamities. As in the case of gram/nagar panchayats, a taluka panchayat has certain discretionary functions.

Statement XIV-6 shows the composition of taluka panchayats as on 1st January, 1971.

STATEMENT

Composition of Taluka Panchayats

Sl. No.	Taluka	Ex-Officio		Number of Members					
		Sarpanchas of Gram Panchayats	Chairman of Nagar Panchayat	Total (3+4)	Women	Scheduled Castes	Scheduled Tribes	Social workers	Total (6 to 9)
1	2	3	4	5	6	7	8	9	10
1	Sinor	..	40	..	40	2	2	2	8
2	Vaghodia	..	56	..	56	..	..	2	4
3	Savli	..	94	..	94	2	2	2	8
4	Naswadi	..	52	..	52	2	2	2	8
5	Karjan	..	82	..	82	2	2	2	8
6	Chhota Udepur	..	71	1	72	2	2	2	8
7	Dabhoi	..	70	..	70	2	2	2	8
8	Tilakwada	..	37	..	37	2	2	2	8
7	Vadodara	..	78	..	78	2	2	2	8
10	Jabugam	..	63	..	63	2	2	2	8
11	Padra	..	66	1	67	2	2	..	6
12	Sankheda	..	73	..	73	2	2	2	8

Source :

1. District Development Officer, Vadodara.
2. Taluka Development Officers of Vadodara District.

Extracted from *District Census Handbook*, Census of India 1971, Part X-C-1, Vadodara District.

XIV-6

As on 1st January, 1971

M.L.A.	Mamlatdar/ Mahalkari	President of Municipality	Associate		Total 11 to 16	Total 5+10 +17 +18
			Members of District Panchayat who reside in the taluka	Nomina- ted by the District Coopera- tive Union		
11	12	13	14	15	16	17
1	1	..	1	1	1	53
1	1	..	1	1	1	65
2	1	..	2	1	1	109
1	1	..	1	1	1	65
..	1	..	2	1	1	95
2	1	..	3	1	1	88
1	1	1	2	1	1	85
1	1	..	1	1	1	50
2	1	..	3	1	1	94
1	1	..	2	1	1	77
1	1	..	3	1	1	80
1	1	..	2	1	1	87

The District Panchayat

The district panchayat consists of elected and associate members and has a President and a Vice-President elected by its elected members from amongst themselves. The number of elected members of a district panchayat varies from 31 to 51. 31 members where the population of the district does not exceed ten lakhs; 35 members where the population does not exceed twelve lakhs, 39 where the population does not exceed fourteen lakhs, 43 where the population does not exceed sixteen lakhs, 47 where the population does not exceed eighteen lakhs and 51 where the population exceeds eighteen lakhs. Out of the total number of seats, provision is made for reservation of seats for women and the Scheduled Castes and the Scheduled Tribes as under :

(a) For women : (i) six seats where the total number of seats is thirty one, (ii) seven seats where the total number of seats is thirty five, (iii) eight seats where the total number of seats is thirty nine, (iv) nine seats where the total number of seats is either forty seven or fifty one. Provisions for reserved seats for Scheduled Castes and Scheduled Tribes are made in the following manner :

(b) for Scheduled Castes, such number of seats as may be determined by the State Government so that the number of seats so determined bears, as nearly as may be, the same proportion to the number arrived at by deducting from the total number of seats specified in the Act the number of seats reserved for women under clause (a) as the population of the Scheduled Castes in the district bears to the total population of the district ; (c) for the Scheduled Tribes, such number of seats as may be determined by the State Government so that the number of seats so determined bears, as nearly as may be, the same proportion to the number arrived at by deducting from the total number of seats specified in the Act the number of seats reserved for women under clause (a) as the population of the Scheduled Tribes in the district bears to the total population of the district.

Provided that the reserved seats may be allotted by rotation to different constituencies in a district in the prescribed manner.

The following shall be associate members of a district panchayat, namely :

(i) members of the House of the People elected from the areas within the jurisdiction of the district panchayat or part thereof ;

(ii) members of the Council of States residing in the revenue district;

(iii) members of the Gujarat Legislative Assembly elected from the area within the jurisdiction of the district panchayat or part thereof ;

(iv) the Collector of the revenue district ;

(v) Presidents of all municipalities within the revenue district and where any administrator or person has been appointed to perform the functions and exercise the powers of any such municipality such administrator or person ;

(vi) One of the directors of the Managing Board of the District Co-operative Bank in the district as may be nominated by the Board ;

(vii) a representative of the District Co-operative Union in the district as may be nominated by the Managing Board of the Union ;

(viii) One such representative of the District Co-operative Purchase and Sale Union as may be nominated by the Managing Board of the Union.

An associate member of the panchayat shall have the right to speak or otherwise to take part in proceedings of the panchayat or of such committee of the panchayat as may be prescribed but he shall not be entitled to vote in any such proceedings.

The district panchayat is vested with administrative and executive powers. It is responsible for various developmental activities in the district such as establishing and maintaining dispensaries, public health centres and allied institutions. It has been entrusted with a wide range of educational activities. It manages primary education and uses the agency of taluka panchayats to supervise it. It co-ordinates and integrates community development schemes and looks after the development of irrigation, agriculture, animal husbandry, public health, medical relief, social welfare, cottage and small scale industries, collection and maintenance of statistics, etc. All these functions have been transferred to the district panchayat on an agency basis. A large number of executive functions such as registration of co-operative societies, approval of amendments of their byelaws, calling of or extending the period for the calling of annual general meetings of co-operative societies and such other functions as were exercised by the Registrar, Co-operative Societies, under the Co-operative Societies Act, have also been transferred to the district panchayat.

Statement XIV.7 shows composition of the district panchayat as on 1st January, 1971.

STATEMENT XIV-7

Composition of District Panchayat As on 1st January, 1971

Number of Members							
Ex-Officio				Elected			
Sl. No.	Presidents of the taluka panchayats	Elected Representatives of taluka panchayats	Women	Scheduled Castes	Scheduled Tribes	Others	Total (4to7)
1	2	3	4	5	6	7	8
1	12	12	2	1	7	14	24

Number of Members							
Associate							
Members of the Parliament	Members of the Rajya Sabha	Members of the Legislative Assembly	Collector	President of the Municipality	Nomina- ted by the District Co- opera- tive Union	Nomina- ted by the District Co- opera- tive Bank	Total No. of Members Cols. 2+3+8 +16 +17
9	10	11	12	13	14	15	16
2	..	13	1	1	1	1	19
							67

Source :

District Development Officer, Vadodara.

Extracted from *District Census Handbook, Census 1971, Part X-C-1, Vadodara District.*

Income and Expenditure of Gram, Taluka and District Panchayats

The income and expenditure of gram, taluka and district panchayats are described in the Statements XIV-8 and XIV-9 respectively. The figures of income and expenditure indicate strength and scope of activities.

From the Statement XIV-8 it will appear that Government grants are given to all three tiers of Panchayati Raj. The village panchayats, taluka panchayats and district panchayat get their shares in fixed percentages from the land revenue collected. However, there are several distinguishing features. So far as analysis of income of three tiers of Panchayat is concerned, to start with in the case of gram panchayats gifts and donations amounted to Rs. 3,38,684. It is significant to note that neither taluka

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panchayats nor the district panchayat get any gift or donation from the public. The gram panchayats get such amount as donation presumably to commemorate the memory of some family member by construction of a school, library or water works at the villages. Secondly, it is only the gram panchayats which are found to levy taxes and fees. Broadly speaking the Panchayati Raj bodies are run practically from Government grants and revenues. Apparently, there is little tax effort on the part of the taluka panchayats or district panchayat.

Statements XIV-8 and XIV-9 show income and items on which expenditure is incurred by gram panchayats, taluka panchayats and district panchayat respectively.

STATEMENT XIV-8

Income of Gram Panchayats, Taluka Panchayats and District Panchayat,
1972-73

Sl. No. 1	Gram Panchayats 2	Rs. 3	Taluka Panchayats 4	Rs. 5	District Panchayat 6	Rs. 7
1	Government Grants (Land Revenue)	16,88,709	Government Grants	1,41,14,744	Government Grants	2,35,30,055
2	Gifts and donations	..	Statutory Grant as Land Revenue Grants	8,79,298	Statutory Grants (Education and Medical)	24,88,770
3	Taxes, fees	..	Education and Medical	1,19,55,265	Land revenue	3,20,940
4	Others	..	From District Panchayat's Own Fund	7,00,426	Local fund cess	2,02,581
	Total	..	..	2,76,49,733	..	2,65,42,346

Source : The District Statistical Officer, Vadodara.

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STATEMENT XIV-9
Expenditure of Gram Panchayats, Taluka Panchayats, and District Panchayat,
1972-73

Sl. No. 1	Gram Panchayats 2	Rs. 3	Taluka Panchayats 5	Rs. 6	District Panchayat 8	Rs. 9	Percentage 10
1	Sanitation and health	27,02,318	Sanitation and health	11,93,495	Sanitation and health	34,53,301	15.29
2	Public works	23,22,267	Public works	15,21,874	Public works	1,26,47,749	56.01
3	Education and culture	8,88,119	Education and culture	96,87,220	Education and culture	18,93,617	8.38
4	Administration	19,12,794	Administration	67,81,497	Administration	6,89,602	2.65
5	Welfare of people	45,033	Welfare of people	11,19,244	Welfare of people	13,71,913	6.07
6	Agriculture, preservation of forests and animal husbandry	88,621	Agriculture, preservation of forests and animal husbandry	6,04,255	Agriculture, preservation of forests and animal husbandry	25,63,338	11.38
7	Village and cottage industry	1,04,447	Village and cottage industry.	1,36,506	Village and cottage industry	51,014	0.22
8	Collection of land revenue and maintenance of land records.	45,057	Collection of land revenue and maintenance of land records.	6,14,751	Collection of land revenue maintenance of land records.	Nil.	0.00
9	Village defence	43,722	Village defence	5,170	..	..	..
10	Other miscellaneous	6,00,883	Other miscellaneous	20,98,678	..	..	..
	Total	87,53,261	100.00	2,36,60,690	100.00	2,25,79,534	100.00

Source : The District Statistical Officer, Vadodara.

The expenditure pattern varies with the levels of Panchayati Raj and the development programme. The gram panchayats spend the largest amount 30.87 per cent on sanitation and health followed by 26.53 per cent on public works, 21.85 per cent on administration, 10.14 per cent on education and culture. For welfare of people, village and cottage industries, village defence and other miscellaneous, they spend 9.09 per cent. For agriculture, preservation of forests and animal husbandry and for collection of land revenue and maintenance of land records they spend 1.01 per cent and 0.51 per cent respectively.

In case of taluka panchayats, the maximum expenditure 40.94 per cent is incurred on education and culture, followed by 28.66 per cent on administration. On agriculture, sanitation and health and public works they spend about 14.02 per cent. In comparison to the gram panchayats they spend least on public works, sanitation, health and agriculture.

In the case of district panchayat, the bulk of expenditure is incurred 56.01 per cent on public works presumably transferred by the State Government for execution. About 15.29 per cent is spent on sanitation and health, 11.38 per cent is spent on agriculture, preservation of forests and animal husbandry, 8.38 per cent is spent on education and culture, 6.07 per cent is spent on welfare of people. Only 2.65 per cent is spent on administration, 0.22 per cent is spent on village and cottage industries.

Panchayati Raj in the District

The Panchayati Raj administration has offered new dimensions and provided considerable scope for reorientation of traditional administration. The organisation and structure of district administration has undergone tremendous change in Panchayati Raj. The administrator working with the people and their representatives is expected to develop 'cultural empathy' with them. After experiments functional equations have been established between elected office bearers and the District Development Officer, which have enabled Panchayati Raj to function smoothly. The progress of Panchayati Raj in the district is reviewed below.

Resource Mobilisation

The rise in figures of income and expenditure analysed in detail are indicative of the growth and efficacy of Panchayati Raj institutions in shouldering heavy responsibilities in the sphere of local development. No doubt, the panchayats at present mostly depend upon the Government plan and non-plan resources given to them. Nearly ninety per cent of the income of panchayats is from State Government grants for functions and duties transferred to them under the Gujarat Panchayats Act, 1961. However, the Act also provides for raising of adequate resources by panchayats themselves. The rate of local fund cess was raised from 20

to 50 paise on every rupee of land revenue collected as from 1st August, 1966, so as to provide more funds to the Panchayati Raj bodies as well as for their plan contributions. By an amendment to Gujarat Panchayats Act, brought in force from 16th April, 1968, the District Panchayats, have been enabled to raise the said local fund cess of 50 paise upto 100 paise if they so desire. The Vadodara District Panchayat in addition to the existing cess of 50 paise, has levied additional cess of 30 paise with effect from 1st August, 1971 for two years. The Vadodara District Panchayat availed itself of the provision to raise stamp duty in its jurisdiction. It had already availed itself of the provision of increasing the local fund cess beyond 50 paise for every rupee of land revenue as indicated previously. Many Taluka Panchayats have also availed themselves of the provision of raising stamp duty. It is really heartening that some gram/nagar panchayats have come forward to tap the provision of imposing village panchayat cess. All this, is indicative of the keen interest of panchayat institutions in resource mobilisation.

Economic Development

Panchayats have given very good account of themselves in fostering economic growth. Few growth points in the sphere of agricultural productions are indicative of this. Panchayat institutions are taking tremendous interest in the various programmes of Agriculture, Animal Husbandry and Minor Irrigation. Kharif-Rabi campaigns are being regularly organised. Demonstrations and crop competition have been the regular feature in such performance. In the field of animal husbandry, schemes like artificial insemination, key villages programme, strengthening of veterinary services, organising milk co-operative at the village, etc., have been in operation. Promotional activities under co-operation have also been properly looked after.

In order to support the observations made above the total outlay and expenditure of the schemes under panchayats for the year 1969-70 are given in the Statement XIV.10.

STATEMENT XIV.10

Total Outlay and Expenditure for Schemes of Panchayats for the Year 1969-70 in Fourth Five Year Plan

(Rs. In '000)

Sl. No.	Subject	Fourth Five Year Plan	
		1969-70 Provision	Expenditure
1	2	3	4
1	Agriculture	80	119
2	Minor irrigation	549	1,102
3	Animal husbandry	22	21

STATEMENT XIV-10—contd.

(Rs. In '000)

Sl. No.	Subject	Fourth Five Year Plan	
		1969-70 Provision	Expenditure
1	2	3	4
4	Community Development	672	773
5	Co-operation	11	35
6	Industries and Mining	25	20
7	Road Development	1,075	1,695
8	Education	401	10
9	Health	..	..
10	Backward class welfare	71	79
	Total	2,943	3,845

Source : Statistics Branch, Vadodara District Panchayat.

The statement shows that in respect of total outlay, provision of Rs. 29.43 lakhs was made for the year 1969-70 whereas expenditure of 10 schemes amounted to Rs. 38.45 lakhs.

Social and Cultural Activities

The needs of the rural areas regarding the cultural and social activities have been adequately met within the district. This is evident from the data given below.

Item	Reference period	Number
1	2	3
1 Libraries and reading rooms	31st March 1973	862
2 Balmandirs and childrens' playing centres .. ..	.. ..	275
3 Ras mandals, Bhajan mandals .. ..	.. ..	644
4 Youth clubs .. ..	.. ..	511
5 Mahila mandals .. ..	.. ..	302
6 Chhatralaya .. ..	.. ..	40
7 Balwadis .. ..	.. ..	22
8 Ashram shalas .. ..	.. ..	13
9 Cinema theatres	1971-1972	32
10 No. of seats in Cinema theatres .. ..	.. ..	19,419
11 Entertainment tax collected .. ..	.. ..	64,03,651
12 Family planning centres	1972-1973	15
13 Family planning sub-centres .. ..	.. ..	37

CHAPTER XV

EDUCATION AND CULTURE

HISTORICAL BACKGROUND

The Vadodara State was little late to come into the field of modern education. Even as late as in 1870, it did nothing for the education of the people and did not maintain even a single educational institution. Kavi Dalpatram tried to persuade Khanderao to open schools and libraries but he was not successful. However, there were about two hundred private elementary schools in the State, (*Pandiyajini Nishalo*), which taught reading, writing and arithmetic in a vague manner to about eight thousand students; while in some of the town schools, which had copied those existing in neighbouring British territory, took pupils a little further up the steps of learning. In the Cantonment at Vadodara, the British authorities had established a small Anglo-vernacular school.

Five schools of the modern type were established in 1871, out of which, one high school and four primary schools—2 Marathi and 2 Gujarati—were started in the Vadodara City. Shri Bhogilal Pranvallahdas, the father of modern education in Saurashtra, was appointed as the Head Master of the Baroda High School and Superintendent of all the schools in the State. During the next decade, there was fairly good progress. In 1873, four *Vedshalas* were established. The year 1875 was even more important because a Vernacular Education Department was formed under a special officer who was designated Vidyadhikari. Shri Bhogilalbhai was appointed as the Director of Vernacular Education. Two girls' schools (1 Gujarati, 1 Marathi), and one Urdu school for boys were established. In the same year, there were 9 Sanskrit, 3 Marathi, 3 Gujarati and 1 Urdu Schools in the Vadodara City. In 1876, an additional post of the Educational Inspector was created and (late) Hargovinddas Kantawala was appointed to that post.¹

EXPANSION OF PRIMARY EDUCATION

After the death of Khanderao, Sayajirao III succeeded him. He was a convinced believer in mass education and in compulsory education for all. After assuming power, he concentrated on the expansion of primary education on a voluntary basis, as a preliminary step towards the introduction of compulsion.

1. SYED NURULLAH AND NAIK J. P., *A History of Education in India* (During the British Period), 1951, p. 898.

In 1881, the number of primary schools increased to 180 with 7,465 pupils. The Baroda College was established in the year 1882. It was recognised in 1890 for full courses in Arts and Science. The Maharaja also gave special encouragement to girls' education and to the education of Harijans, because these two were the principal handicaps in the programme of compulsory education.

By 1891, there were 558 primary schools in the State, the majority being situated in the towns and larger villages. The small villages were as yet unprovided with Government schools. In 1891, it was ordered that the schoolmasters should become one of the village servants and that the schools be provided in all villages, which could collect sixteen children willing to attend. The schoolmaster was paid from 3 to 5 rupees a month from the Revenue Department. Besides he was permitted to receive fees, either in money or in kind, from the grateful parents of his pupils. Towards the cost of maintenance of these schools, a grant varying in amount with the examination results, was paid by the Department of Education. On the recommendations of the Education Commission, the indigenous private schools in the villages were brought under the control of the Education Department. The village schoolmaster was paid six rupees a month by the State, and was permitted to get as much as he could from the villagers in addition. A maximum grant of twenty rupees was also paid to each schoolmaster as a reward for efficiency. Most of these village schools, *gramyashalas*, were one-teacher schools but in 1892, an assistant was given to all schools, which had an attendance of fifty or more children. In 1905, the control of these village schools was handed over to local boards, but the experiment was not successful and so in 1910 the village schools were again put under the control of the Education Department as per recommendations of the Education Commission.

Experiment in Compulsion

Under Maharaja Savajirao Gaikwad, III compulsory primary education was introduced for the first time in India. He, in a speech delivered said : "I have no hesitation in saying that we cannot do better than educate all our subjects. This is absolutely necessary for the realisation of my ambitions and wishes for the future of my people."¹ After long deliberations, in March 1892, compulsory education was experimentally introduced in the town of Amreli, and nine villages of the taluka. All boys between the ages of 7 and 12 years, and all girls of 7 to 10 years, living within a mile of a school, were compelled to attend that school unless they were privately taught, or had already passed the standard declared to be compulsory, or for certain other reasons. The compulsory standards were then first three.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 308-09.

Gradually the experiment was extended to other villages of Amreli taluka. Fifteen years' experience in Amreli taluka having proved that compulsory primary education was both desirable and possible, an Act making it compulsory throughout the State was introduced and passed in 1906. The administration of compulsion was with Revenue Department. Lists of children affected by the Act were drawn up in each village by the Patel and the schoolmaster each year; appeals against the inclusion of particular names went to the Vahivatlal of the taluka; and penalties under the Act were inflicted by the latter officer. Compulsion was vigorously pursued in all parts of the State (1906-15) :

EXPERIMENT IN NATIONAL EDUCATION

Due to the partition of Bengal (1905) there was an awakening among the people, Shri Arvind Ghosh played a prominent role in it and under his inspiration Shri Khaserao Jadav and Shri Keshavrao Deshpande started a National School in 1907 at Gangnath Mandir situated in the estate of Rana of Mandva. The objective behind this institution was to prepare an army of freedom fighters.

In this institution, subjects taught were Sanskrit, Vedic Dharma, arithmetic, painting, History (written by Indian authors), carpentry, weaving, military training, religious education, etc. There was nothing unlawful in the activities of this institution. However the British Government suspected sedition and forced the State Government to get it closed, so the institution was closed in 1911.

Policy Against Single Teacher's School

Most of the schools in rural and backward areas were single-teacher schools. The policy of free encouragement to single-teacher schools was changed in 1916-17, with a view to improve the quality of education. So it was then laid down that, the minimum number of teachers in a primary school should be two and that a State primary school would be established only in places where about 75 children were available for instruction. Mr. Philip Hartog and the Royal Indian Agriculture Commission too advocated this policy with a view to arrest expansion of education.

Mr. Littlehales, the retired Educational Commissioner, Government of India, was invited to guide the State in this policy of single teacher's schools (1933). He did not support the State Government's policy about single-teacher schools. He wrote : "Single-teacher schools under trained teachers may be quite satisfactory; they are not objectionable.....What is desirable is that where a single-teacher school exists, the teacher should be conscientious in character and trained."

1. SYED NURULLAH AND NAIK J. P., *A History of Education in India (During the British Period)*, 1951, p. 903.

The policy against single-teacher school slowed down the pace of compulsion; it denied education to small villages, it affected adversely the education of backward communities like Rani Paraj etc., who lived in forest areas in small villages.

Enforcement of Compulsion

In 1914, a change was made in the enforcement of compulsion. Exaction of penalties was withdrawn from the Vahivatdar (Revenue Officer) and was entrusted to the Village Boards and to the Municipalities. The intention was to make the successful operation of the Act, a matter for the local authorities rather than for the Revenue Department, and the innovation, on the whole, worked well. In order to induce the *patels* and *talatis* to take an active interest in the matter, five per cent of the fine recovered was paid to them as rewards of zeal in the discovery and punishment of offenders. The balance of the fines recovered was expended on the erection of school buildings and on giving clothes and other assistance to particularly poor children. The absence from school was only punishable when it amounted to two-thirds of the total number of working days in a month, the fine papers being prepared every month. In 1913, attendance at school age of compulsion was changed to include the fourteenth year for boys, and the twelfth for girls, and compulsory standard was raised to the fifth for both.

PROGRESS OF EDUCATION (1906-1945)

Primary Education

Primary Education in Baroda State (1906-1945)

Year		Total No. of Schools	Total No. of Pupils	Boys Schools		Girls Schools	
				No. of Schools	No. of Pupils	No. of Schools	No. of Girls
1		2	3	4	5	6	7
1906-07	..	1,341	99,768	N.A.	N.A.	N.A.	N.A.
1915 ..	..	3,000	2,42,049	2,606	1,47,647	394	*94,402
1921-22	..	2,652	1,84,843	2,293	1,24,013	359	60,830
1931-32 (Govern- ment)		2,419	2,28,799	2,102	1,91,814	317	36,985
1941-42	..	2,353	2,74,602	2,062	2,28,523	291	46,079
1945-46	..	2,329	2,76,932	2,036	2,29,600	293	47,332

*This number includes the girls learning in Mixed Schools.

Source :

Baroda Administration Report-1906-07, 1915, 1921-22, 1931-32, 1941-42 and 1945-46.

1. SYED NURULLAH AND NAIK J. P., *A History of Education in India* (During the British Period), 1951, p. 104.

Secondary Education

In the field of secondary education, the progress in the district was also noteworthy. The decennial progress of the district before merger is as under :

Year	No. of Schools		
1	2		
1871-1895	..	..	1
1901-1910	..	..	5
1911-1920	..	..	10
1921-1930	..	..	16
1931-1941	..	..	28
1941-1949	..	..	58

Source : State Institution of Education, Ahmadabad.

Higher Education

On the eve of Independence, there were 3 colleges with 2,446 boys and girls.

ORGANISATIONAL SET-UP

In the Vadodara State in 1921, Vidyadhikari was the head and under him were 6 Educational Inspectors (Prant Shaladhikaris) 2 were for the Vadodara Prant, 2 for Kadi (Mahesana) Prant and 1 for Amreli and Navsari Prant respectively. Under him there were the Deputy Educational Inspectors or Mahalshaladhikaris. There were also special assistants E. I. S. for Urdu and Antyaja schools. There was also a special post of Lady Superintendent and Inspectress of Girls Schools. Female Training Colleges, Girls' High Schools and Zanana Classes were under her control.

There was practically no change in the organisation upto 1949, with the sole exception that the post of Educational Inspector of Secondary Schools was created.

1. (a) SYED NURULLAH AND NAIK J. P., *A History of Education in India*, (During the British Period), 1951, p. 898.

(b) RAJYAGOR S. B., *Education in Gujarat, 1854-1954*, (1958), p. 42.

Present Administrative Set-up

The District Education Officer is the head of the Education Department at the district level. He is assisted by 5 Educational Inspectors (Class II) and 15 Assistant Educational Inspectors (Class III). He is responsible for inspection and supervision of the secondary schools and training institutions and pre-primary schools in municipal areas. Besides that he inspects 10 per cent of the primary schools, both under the Municipal Corporation and District Panchayat. He is also in general charge of primary education.

The primary schools under the Municipal Corporation are under the charge of an Administrative Officer (Class II). He also works as a Secretary of the Educational Committee of the Corporation. Under the District Panchayat, the District Administrative Officer of Panchayat is in charge of supervision and inspection of primary schools, village libraries, pre-primary schools, social education classes and gymnasia. He is a Member Secretary of the Educational Committee of the District Panchayat. There are a number of Assistant Deputy Educational Inspectors under the Administrative Officer for inspection and supervision of primary schools. At the taluka level, there is one Assistant Deputy Educational Inspector called Vahivati Nirikshak to look into the administrative affairs of the taluka.

LITERACY*Growth of Literacy since 1951*

The last three Censuses have brought to light the progress achieved in the literacy standard in the district, which rose from 27.55 to 40.67 per cent between 1951-1971. Literacy among males increased from 31.18 in 1951 to 50.56 per cent in 1971 and that of females from 17.02 to 29.69 per cent of the total population of the district.

Population Growth and Literacy

The growth of population during the period from 1951-61 was 26.02 per cent while it was 29.64 per cent in 1961-71. As compared to this, the general literacy in the district during these periods rose by 7.66 per cent and 5.46 per cent respectively. It indicates that the rate of growth of literacy is not keeping pace with that of the population.

According to the Census of 1971, the all-India Literacy rates for persons, males and females are reported to be 29.46, 39.45 and 18.72 per cent

1. *Quarterly Bulletin of Economics and Statistics*, Vol. XII No. 1 January-March, 1972. Bureau of Economics and Statistics, Government of Gujarat, Ahmadabad.

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respectively. Comparable literacy rates in Gujarat are higher than the all-India average, ranking 4th in total in respect of male literacy (35.79 total and 46.11 males), and 5th in respect of female literacy (24.75).

It is interesting to note that the Vadodara district occupies the first rank in the State in respect of (1) total Urban literacy, (2) Urban male literacy, and (3) Urban female literacy, according to the 1971 Census. According to the 1961 Census, it was second in all these categories. In the case of rural areas, in the total and male literacy, the district ranked 6th, both in the 1961 and 1971 Censuses. While in rural female literacy the district ranked down from 7th in 1961 to 8th in 1971, the district ranked 4th in total literacy both in the 1961 and 1971 Censuses.

The percentage of literacy to total population by age and sex is given for total/rural/urban in the following statement.

STATEMENT XV-I
Literacy Percentage by Age-groups, 1961

Age-groups 1	Total			Rural			Urban		
	Persons 2	Males 3	Females 4	Persons 5	Males 6	Females 7	Persons 8	Males 9	Females 10
All Ages	35.21	45.89	23.43	28.75	39.46	17.13	53.57	63.64	41.95
5-14	39.68	46.05	32.52	33.97	41.14	25.04	56.44	60.38	51.97
15-34	48.00	61.95	32.71	38.91	53.40	23.61	70.66	82.04	56.99
35-59	37.51	53.18	19.08	30.53	45.90	12.73	58.37	74.34	38.69
60+	25.50	44.45	7.12	19.92	36.55	3.62	42.81	69.52	17.75
Age not stated	20.91	33.55	9.71	18.39	29.29	9.41	60.00	73.33	20.00

Source : *District Census Handbook 1961, Baroda*, p. 15.

Literates among children in the age-group 5-14, constitute 39.68 per cent out of whom males account for 46.05 per cent and females for 32.52 per cent. The highest literacy among persons and males is found to be in the age-group 15-34 in total/rural/urban areas. The highest percentage of literacy among females is to be found in the age-group 15-34 in total and urban areas of the district but in the rural areas, the percentage of female literacy is higher in the age-group 5-14.

The following statement furnishes the sex-wise details of literacy by rural/urban for each taluka of the district.

STATEMENT XV.2
Rural/Urban Literacy by Sex, 1971

Sl. No.	Name of the Taluka / Mahal	Total Rural/Urban	Literates (number)	Percentage of total population	Literate males	Percentage of total male population	Literate females	Percentage of total female population
1	2	3	4	5	6	7	8	9
1	District Total	..	..	..	805,308	40.67	526,674	50.56
		T	433,857	31.51	301,260	28.92	278,634	29.69
		U	371,451	61.58	225,414	69.63	132,597	20.12
							146,037	52.26
2	Vadodara Taluka	..	..	..	381,910	57.40	236,749	66.09
		T	77,820	41.66	53,284	53.39	24,536	28.21
		U	304,090	63.55	183,465	70.99	120,625	54.81
3	Karjan Taluka	..	..	..	48,641	42.38	31,694	53.10
		T	42,891	41.72	28,110	52.72	14,781	29.86
		U	5,750	48.04	3,584	56.31	2,166	38.66
4	Padra Taluka	..	..	..	76,883	44.87	50,981	56.37
		T	63,239	43.00	42,677	55.22	20,562	29.46
		U	13,644	56.31	8,304	56.48	5,340	46.25
5	Savli Taluka	..	..	..	55,056	34.19	39,355	46.32
		T	55,056	34.19	39,355	46.32	15,701	20.65
		U	..	..	..	..	..	..
6	Vaghodia Taluka	..	..	..	29,705	33.28	21,322	49.85
		T	25,627	31.36	18,771	47.84	6,850	17.47
		U	4,078	54.01	2,551	72.18	1,527	43.21
7	Dabhoi Taluka	..	..	..	67,590	46.56	42,793	61.95
		T	46,264	43.13	29,633	58.11	16,631	35.90
		U	21,326	56.28	13,160	72.80	8,166	32.61

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8	Sankheda Taluka	..	..	..	48,180	56.28	32,888	51.21	15,292	23.81
		T	37,329	32.95	26,043	47.75	11,286	47.75	11,286	20.69
		U	10,851	53.24	6,845	70.73	4,006	70.73	4,006	41.39
9	Jabugam Taluka	..	..	..	24,098	17.49	19,222	28.76	4,876	7.29
		T	24,098	17.49	19,222	28.76	4,876	28.76	4,876	7.29
		U	..	..	..	..	..	..	..	..
10	Chhota Udepur Taluka	..	..	..	20,275	10.73	15,113	16.37	5,162	5.59
		T	12,862	7.37	10,385	12.15	2,477	12.15	2,477	2.90
		U	7,413	51.78	4,728	69.00	2,685	69.00	2,685	39.19
11	Nasvadi Taluka	..	..	..	13,295	18.30	10,055	27.02	3,240	9.14
		T	13,295	18.30	10,055	27.02	3,240	27.02	3,240	9.14
		U	..	..	..	..	..	..	..	..
12	Tilakwada Mahal	..	..	..	12,831	29.47	9,347	41.22	3,484	16.70
		T	12,831	29.47	9,347	41.22	3,484	41.22	3,484	16.70
		U	..	..	..	..	..	..	..	..
13	Sinor Taluka	..	..	..	26,844	47.38	17,155	58.37	9,689	35.53
		T	22,545	46.67	14,378	57.26	8,167	57.26	8,167	35.21
		U	4,299	51.50	2,777	64.90	1,522	64.90	1,522	37.40

Source : District Census Handbook 1971, Vadodara, Part X-A and B, (Town and Village Directory, Primary Census Abstract), pp. 6 to 147.

According to the Census of 1971, the highest percentage of general literacy was recorded in the Vadodara taluka (57.40 per cent) and the lowest in the Chhota Udepur taluka (10.73 per cent). In the urban areas, the percentage of general literacy was comparatively higher than that in the rural areas. In the urban areas Vadodara taluka had the highest per cent of general literacy (63.55 per cent) obviously because of educational facilities available there, and it was lowest in the Karjan taluka (48.04 per cent).

The highest percentage of general literacy in the rural areas was found in the Sinor taluka (46.67 per cent).

The general literacy for both males and females was the highest in the Vadodara taluka (66.09 per cent and 47.27 per cent). This can be ascribed to a number of measures taken by former Vadodara State such as compulsory education and promotion of female education. The lowest percentage of literacy for both the sexes was in the Chhota Udepur taluka (16.37 per cent for males and 5.59 per cent for females.). This is because the area is hilly, tribal and less developed.

In the case of urban areas the highest literacy for males was recorded in the Dabhoi taluka (72.80 per cent) and for females the highest percentage of literacy was returned in the Vadodara taluka (54.81 per cent). The lowest percentage for males was recorded in the Karjan taluka (56.31) and the lowest percentage of female literacy was recorded in the Sinor taluka (37.40 per cent).

In the rural areas, the highest percentage of male literacy (58.11 per cent) was found in the Dabhoi taluka and for female, it was in the Sinor taluka (35.21 per cent). The lowest percentage both for males and females was recorded in the Chhota Udepur taluka (12.15 per cent and 2.90 per cent respectively).

Educational Standards

The true picture of the educational standards in the district can be had from the Census (1961) Statement shown below.

STATEMENT XV-3

Educational Levels in Urban and Rural Areas, 1961

Sl. No.	Educational levels	Urban			Rural		
		Persons	Males	Females	Persons	Males	Females
		3	4	5	6	7	8
	Total	397,494	213,017	184,477	1,129,832	588,009	541,823
1	Illiterate	184,550	77,462	107,088	804,996	355,968	449,028
2	Literate (without educational levels)	66,522	39,160	27,362	550,888	103,330	47,558
3	Primary or Junior Basic	116,330	71,839	44,491	168,631	123,756	44,875

STATEMENT XV-3—contd.

Sl. No.	Educational levels	Urban			Rural		
		Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8
4	Matriculation or Higher Secondary	22,921	18,526	4,395	5,317	4,955	362
5	Technical diploma not equal to degree	811	784	27	..	..	..
6	Non-technical diploma not equal to degree	69	59	10	..	..	..
7	University degree or post-graduate degree other than technical degree	3,445	2,665	780	..	..	..
8	Technical degree or diploma equal to degree or post-graduate degree	2,846	2,522	324	..	..	..
	(i) Engineering	500	500	..	..	..	..
	(ii) Medicine	447	401	46	..	..	..
	(iii) Agriculture	38	38	..	..	..	..
	(iv) Veterinary and Dairying	7	7	..	..	..	..
	(v) Technology	65	65	..	..	..	..
	(vi) Teaching	389	260	129	..	..	..
	(vii) Others	1,400	1,251	149	..	..	..

Source : Census of India 1961, Vol. V, Gujarat, Part II-C, *Cultural and Migration Tables*, 1964, pp. 56-57 and 63.

This statement gives a very revealing picture of the progress of education which the district has made in recent years. It clearly shows the common pattern of standard of education in the urban and rural areas. Generally, the standard of education is lower in the countryside than in the towns. As much as 71.25 per cent of the total rural population was illiterate as against 46.43 per cent for the urban areas. This is due to the availability of greater educational facilities in towns.

After Independence, the progress in the field of higher and technical education is noteworthy. This is because of the facilities made available on account of the establishment of the M. S. University at the district headquarters, Vadodara. According to the 1961 Census, in urban areas, 3,445 persons received university education or the post-graduate degrees, other than technical degrees and 2,846 persons were reported to have acquired technical

qualifications. It is interesting to note that, of the persons taking post S. S. C. Courses, 45.24 per cent held technical degrees and 54.76 per cent had university degrees or post-graduate degrees other than technical degrees.

Among the professional courses, 'Engineering', 'Medicine' and 'Teaching', are given preference. Females have also availed of the benefits of higher education.

SPREAD OF EDUCATION AMONG WOMEN

The Vadodara State was in the vanguard in the sphere of female education. One girls' school was opened at Vadodara in the year 1875. In 1880, there were eight such schools throughout the State, with a total attendance of 502. In 1885, Sayajirao III stressed the importance of female education in the memorandum which ran as under :

"I would particularly emphasise the importance of the education of girls. It is the unremitting watchfulness and conciliatory supervision of intelligent and educated mothers which are the powerful factors in giving right tone to infant minds, and which are the best agents for the eradication of crooked ways. Women regulate the social life of a people, and men and women rise or fall together. To fit the girls for their functions in our social life, I would give my special attention to the opening of girls' schools."

The policy of the Department of Education (Vadodara State) was to open schools for girls in all places where a sufficient number of students was forthcoming and where sufficient number of girl students were not forthcoming, girls under twelve years of age were admitted to the boys' school. In all cases, inducements in the shape of special prizes and scholarships were given to encourage regular attendance. In spite of these facilities the progress in female education was not adequate.

Amongst the difficulties experienced in accelerating the progress of female education was the lack of female teachers. To remedy this situation a Training College for women was established as far back as 1882. It was provided with an exceptionally commodious building on the banks of the Sursagar tank in Vadodara City. The women teachers were provided with excellent practising school. All girl students received scholarships while under training.¹

For the benefit of women, who could not attend the regular girls schools owing to pressure of domestic duties, a *zanana* class was conducted and the

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923.) p. 315.

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inmates were given instructions in elements of reading, writing, keeping accounts, needle work and embroidery at Vadodara.

The progress of female education in the primary section was very remarkable after integration. This can be clearly seen from the following table.

Year 1	No. of girls schools and students		No. of girls students in mixed schools 4	Total No. of girls students in primary schools 5
	(a) 2	(b) 3		
1951-52	..	..	N.A.	N.A.
1956-57	..	..	35	11,858
1960-61	..	..	39	14,424
1966-67	..	..	59	26,831
1969-70	..	..	71	28,581
1972-73	..	..	68	29,581

Source :
(1) Administrative Officer, District Panchayat, Vadodara.
(2) Administrative Officer, Vadodara Municipal Corporation.

Before 1896, there were no arrangements made by which girls would receive secondary or higher education. In that year, two private English Classes were opened for them, but owing to lack of sufficient support, they were soon closed. In 1906, some English Classes were opened as a part of the Female Training College. In the following year, these became the Anglo-Vernacular school for girls and ultimately developed into a High School affiliated to the University of Bombay for the University Entrance Examination.

Upto 1940-41, there was only one secondary girls' school, viz., Maharani High School in the Vadodara City. The number of girls taking secondary education in the State was 2,553. Out of these 1,648 were in Government schools, 622 in aided schools and 283 girls were in other recognised institutions. There was also a Boarding House attached to the Maharani Girls High School, Vadodara.

Upto 1961-62 the number of secondary schools exclusively for girls was five with a strength of 5,923 students. The number of such schools

rose to 16 in 1968-69 and to 21 in 1972-73. The number of girls studying in these schools was 8,590 in 1968-69 and 9,595 in 1972-73, which formed 44.47 per cent of all the girls studying in secondary schools in the district (1972-73).

At the University level, girls started taking interest very late. In the year 1972-73 there were 2 separate colleges for women in the district, viz., the Mahila Mahavidyalaya (1923) affiliated to S. N. D. T. University and Faculty of Home-science (1950) run by the M. S. University. The total number of girl students was 5,998 in 1972-73, i. e., 27.21 per cent.

Spread of Education Among Backward Classes and Tribes

Literacy and education among the Scheduled Castes and Scheduled Tribes for the urban and rural areas as returned by the 1971 Census are given below :

	Total Population of Scheduled Castes and Scheduled Tribes			Literate and Educated Persons			Percentage of literacy		
	Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
Total..	587,954	304,216	283,738	94,341	73,483	20,858	16.05	24.15	7.35
Rural..	540,098	278,485	261,613	77,868	61,518	16,350	14.42	22.09	6.25
Urban..	47,856	25,731	22,125	16,473	11,965	4,508	34.42	34.42	20.38

Source :

District Census Handbook 1971, Part, X-C-I, pp. 104-116.

These figures reveal a low level of literacy among the Scheduled Castes and Scheduled Tribes. The level of literacy among those living in rural areas was obviously very low. The level of literacy of their females is comparatively still lower only 20,858 out of a total of 283,738 i. e., 7.35 per cent were returned as literates against the 29.69 per cent general literacy of females in the district.

The percentage of Scheduled Caste literacy in 1961 was 30.14. It rose to 35.52 per cent of their population in 1971. The percentage of literacy among the Scheduled Tribe slightly decreased from 11.55 to 11.32 in the district, suggesting very little impact of literacy drive on this section of society. It also indicates that the growth of literacy is not keeping pace with the growth of population.

Educational Facilities for Backward Classes

According to the 1971 Census, population of the Scheduled Castes in the district was 5.80 per cent to total population, while the Scheduled Tribes population was 23.89 per cent of the total population of the district. Scheduled Castes, being a weaker section of the society, needs special attention and treatment in various fields of developmental activities. In this respect, the former Baroda State had undertaken special measures to spread education among Dheds, Chamars, Khalsas, Bhangis etc., who were known as Antyaja by opening schools for them. In 1883, a policy decision was taken to open special schools for them and supply them with books, slates and other requisites free of charge. Boarding Houses were also opened. In the year 1891-92, one Boarding School was opened at Vadodara, where free education with boarding, lodging and clothing facilities were provided to such students. Scholarships were also awarded. There was a provision for 100 students in this Boarding School. Many Antyaja children also attended in the ordinary Gujarati primary schools. According to the *Gazetteer of the Baroda State, 1923*, Government, besides supplying books etc., free to these students, gave Scholarships of the aggregate value of Rs. 122 per month to Antyaja children studying in primary schools and 10 Scholarships of the aggregate value of Rs. 54 per month were awarded to Antyaja students in secondary schools. In the year 1909-10, College at Vadodara the untouchables were first admitted in the year 1909-10. The Antyaja Boarding House at Vadodara had 45 inmates. Most of taluka headquarters and villages were covered with Antyaja schools. Another unique institution called the Garoda Pathashala was founded in August, 1913, to educate the Garodas, the priests of the Antyajas, in the proper performance of the religious rites and ceremonies. In this institute, Sanskrit, along with other subjects of the curriculum, was taught to the sons of the Garodas. This Pathashala was closed in the year 1921-22.

For the benefit of the tribals, the State, had made liberal provision of free boarding, lodging and clothing in special Boarding Schools known as Dhanka School.

After Independence, the Government, constituted a separate Department for the Backward Classes. The Backward Class children were provided with tuition fees, examination fees, scholarships, hostel facilities, etc. During the First Five Year Plan, 24,099 Backward Class students were provided books, slates and necessary material for study. Over and above tuition fees, scholarships were given to the secondary schools students of the Backward Classes. The financial assistance given as per scheme was about Rs. 93,000.

During the Second Five Year Plan financial assistance was given to 2,809 Backward Class students of secondary schools for tuition fees, examina-

tion fees and scholarship, etc. The total amount spent for this purpose was Rs. 4.91 Lakhs.1

The educational concessions provided by the Bombay State are still continued in the Gujarat State after bifurcation. A brief description of them is given below :

Primary and Secondary Education

The primary and secondary education is free to all the classes of the students. The Backward Class students studying (Government or local bodies schools) in Std. V to VII, with 40 per cent marks or more in the last examination are given lump sum scholarship at the rate of Rs. 40 per annum per student and those students who are studying in non-Government schools are given scholarships at the rate of Rs. 60 to Rs. 90 per annum. In addition the Backward Class students studying in Std. VIII to XI and those who are preparing for technical courses are given annual scholarships of Rs. 75 to Rs. 115 per annum respectively on statutory *cum* poverty basis. They are also given examination fees for appearing at the S. S. C. Examination.

Higher Education

Under the Government of India Scheme for the Backward Class students, the State Directorate of Social Welfare awards scholarships to eligible students for prosecuting post-secondary school courses. The amount of scholarship varies from Rs. 125 to Rs. 250 per month per student according to the faculties such as Arts, Science, Medical, Engineering etc., taking into consideration their attendance and also the fact whether they are staying in hostels or are day scholars. The scheme is being administered by the State Government since 1959-69. Government have reserved certain percentage of seats for them in educational institutions.

Hostels

During the First Five Year Plan period there were three Backward Class hostels in the district. It rose to 16 in total at the end of the Second Five Year Plan (including one girls hostel). During the Third Five Year Plan eleven new hostels were started. Thereafter from 1966 to 1969, four more hostels were added. At the end of the 1968-69 in all there were 31 hostels in the district.

In 1973-74 there were 45 hostels (33 for boys and 12 for girls), out of these 34 were for Scheduled Tribes and 11 were for Scheduled Castes students. All these hostels were run by voluntary agencies. About 1,900 students are benefited every year by this provision.

૧. આયોજનનાં અઝાર વર્ષ, પ્રગતિને પંથે, ગુજરાત રાજ્ય, વડોદરા જિલ્લો.

During the III, IV and Fifth Five Year Plans, the expenditure incurred for educational facilities are as under :

Sl. No. 1	Scheme 2	Total expenditure incurred in past five year plan (upto 1973)		
		III 3	IV 4	V 5
		Rs.	Rs.	Rs.
1	Tuition fees ..	6,95,912	951,600	757,839
2	Scholarships ..	4,12,319	907,413	806,166
3	Examination fees ..	16,390	30,256	30,540
	Total ..	1,124,621	1,889,269	1,594,545

The Backward Class hostels run by the voluntary agencies are also given financial assistance by the Government.

The following institutions are conducting educational and Welfare activities in the district.

- (1) The Vadodara Jilla Pachhat Varg Seva Mandal, Vadodara.
- (2) The Vadodara Jilla Harijan Sevak Sangh, Vadodara.
- (3) The Samagra Gram-Seva Mandal-Rajpura, Taluka Savli.
- (4) The Lok Seva Mandal, Lamda, Taluka-Savli.
- (5) The Navchetan Kelavani Mandal, Puniyad, Taluka-Sinor.
- (6) The Jilla Samaj Kalyan Pachhat Varg Seva Mandal, Vadodara.

General Education

PRE-PRIMARY EDUCATION

Pre-primary education is the education of the child below the age of 6. It begins from 3rd or 4th year. During this period, the foundations of habits of mental, moral and physical health are formed. A pre-primary School is commonly known as Balwadi, Balmandir, Shishu Vihar, etc. In India the credit of introducing kindergarten and Montessori systems goes to the Missionaries. The literature regarding Montessori School was available in English in 1911. In the year 1912 one Kindergarten School was started in the City. There were four such schools with 598 pupils in the City during

1918-19. In the talukas of the district the first Balmandir was started at Bahadarpura in Sankheda taluka in 1922. In 1940-41 there were 29 Balmandirs with 1,636 pupils in the State. At present, all parts of the district particularly big villages, towns and cities have Balmandirs.

In the year 1972-73 there were 104 Balmandirs with 6,268 students in the district. Out of these 80 were in the rural areas and 24 in the urban areas.

PRIMARY EDUCATION

After Independence, primary education received a great impetus. In 1953-54, the Government launched an intensive drive for providing schools to as many villages as possible. Three programmes were undertaken for this purpose. The first was the opening of independent schools in school-less villages with a population of 500 or over. (These were mostly single-teacher institutions). Under the second scheme, known as the Group Schools Scheme, small villages which could not be given independent schools were grouped with a neighbouring village, where such a school already existed or where a new school was specially opened for the purpose. The third scheme was known as the scheme of peripatetic teachers, whereunder a teacher was appointed to work in both the villages in any one of the three ways, (1) to hold the morning session of the school in one village and the afternoon session in another on the same day; (2) to hold school alternately in each village on six days of the week; and (3) to hold school on three consecutive days of each week in one village and on the remaining three consecutive days in the other. This has created a very favourable condition and as a result, the number of school-less villages went down considerably. According to the 1961 Census, out of 1,691 villages in the district, 1,067 villages (63.10 per cent), were provided with primary schools. An appreciable progress was made in this direction in the Padra, Karjan and Vadodara talukas, where about 90.00 per cent villages were provided with primary schools. It is noteworthy that in the Sinor taluka 100.00 per cent villages were covered with school facility. With the introduction of the Panchayati Raj from 1st April 1963 primary education, except in authorised municipal areas, has been transferred to the District Panchayat. The District Panchayats discharge their responsibility through the Education Committees. The Education Department appoints Administrative Officers to the District Panchayats. In the urban areas, the responsibility for the primary education is entrusted to the authorised municipalities, which are also given grants in accordance with rules. According to the 1971 Census, 30.04 per cent villages of the district were without facilities of the primary schools. The number of scholars per thousand population was 119, and the area covered per school was 5.34 sq. km. Out of 1,435 schools, 457 were single-teacher schools in non-municipal areas. The number of scholars per teacher came to 36 in 1971.

The following table gives details about the progress made in the field of primary education during the plan periods:

Progress of Primary Education

Sl. No. 1	Year 2		No. of primary schools (including basic schools) 3	No. of pupils		Total 6
				Boys 4	Girls 5	
1	1951-52	..	721	N. A.	N. A.	94,958
2	1956-57	..	1,036	82,699	45,261	127,960
3	1961-62	..	1,153	105,920	66,641	172,561
4	1966-67	..	1,521	135,043	84,841	219,884
5	1972-73	..	1,632	156,660	100,937	257,597

Sources :

1. District Census Handbook 1961, Baroda.
2. Administrative Officer, Vadodara Jilla Panchayat, Vadodara.
3. Administrative Officer, Vadodara Municipal Corporation.

As can be seen from the above, primary education registered a remarkable progress during the Three Plan periods. The number of primary schools rose from 721 in 1951-52 to 1,153 in 1961-62 and to 1,632 in 1972-73, while the number of pupils also rose from 94,958 to 172,561 and 257,597 respectively during the same period.

The Compulsory Education Act of the former Vadodara State remained in force upto 1948 in the district. Thereafter, the Bombay State Compulsory Education Act, 1948 was applied to this district. According to it the children in the age-group 7-8 years, residing in towns, with a population more than one thousand were brought under the compulsion. This scheme was extended by stages as shown below :

Year	Age-group	
1948-49	..	7-9
1949-50	..	7-10
1950-51	..	7-11

During the First Five Year Plan, compulsory education was introduced from August 1, 1954 for the age-group 7-8 years in towns having a population of one thousand or more, according to the 1951 Census. This scheme was applied to other age-groups as shown below :

Year	Age-group
1955-56 ..	7-9
1956-57 ..	7-10
1957-58 ..	7-11

During the Second Five Year Plan, compulsory education was introduced from September 1, 1956, in all towns having a population between 500 and 999. Excepting a few villages, the scheme was gradually extended to following age-groups, from October 1, 1956, to include small village with a population of even less than 500 souls.

Year	Age group
1956-57 ..	7-8
1957-58 ..	7-9
1958-59 ..	..
1959-60 ..	7-10

Source : 66th Session, Indian National Congress "Souvenir", Bhavnagar, 1961, p. 230.

*According to the Constitutional provision the primary education should be free and universal. By the end of 1960 compulsory primary education for the age-group 6-14 was to be introduced, but this target is not achieved for the age-group 7-11, and many children of the school-going age still have not been admitted for socio-economic reasons.

Activities of Educational Committee, Vadodara Municipal Corporation

Since 1953, Vadodara Municipality undertook the responsibility of primary education of the city. At that time there were 42 primary schools managed by educational committee of the city Municipality. Thereafter, the Municipality was upgraded and became Corporation. In the year 1974, the Educational Committee of the Corporation, managed 103 schools with 48,700 students and 1,313 teachers. These schools were housed in 62 buildings, many of them were housing double shifts. In the field of pre-primary education, the education committee followed a new policy of linking pre-primary schools with every new primary schools. In 1966-67, many Balwadis were opened. It is now the policy of the Committee to start pre-primary schools with every new primary schools. Besides that, number of schools were opened in backward areas (wards) of the city, and the backward class students studying in pre-primary and primary schools are provided clothes, slates and books, free of charge.

*Perspective Plan of Gujarat, 1974-1984, Vol. III, Government of Gujarat, 1972.

To collect more children in the schools, an attractive scheme of mid-day meal with the co-operation of American Catholic Relief Service was piloted in the year 1972-73 and continued thereafter. The Children of pre-primary and primary schools of the Corporation are provided 100 m-l of milk and two slices of 100 grams bread. In the year 1972-73, Rs. 14,39,188 were spent for the scheme.

Over and above the responsibility of pre-primary and primary schools, the Corporation Committee also started one deaf-dumb school. In the year 1973-74, there were 24 students in this school.

Nai Talim School

Under the management of the Corporation, there are 6 basic schools of which 5 are purely weaving and one is carpentry school. The number of students covered under this basic scheme was 3,951. Besides these Nai Talim Schools, there were 2 experimental schools attached to Government Training Institution. The number of students in these 2 schools was 590 in the year 1973-74. The Education Committee also publishes one monthly, "Gnan-Jyot" and keeps teachers, pupils and the people in touch with recent trends in the field of education.

Primary School Teachers

As per Government rules, every teacher is expected to teach 40 students but in the rural areas, the number of students per class is less than 14, and so he is required to teach more than one classes : In the urban areas, the number of pupils sometimes exceeds 40 and the schools are required to run in shift due to lack of accommodation. The number of teachers increased from 6,288 in 1969-70 to 7,373 in 1973-74. It is noteworthy that more than 90 per cent of the teachers are trained teachers in the district. The details of the trained and untrained teachers are as under :

STATEMENT XV-4
Teachers in Primary Schools

Sl. No.	Year	Number of Teachers in Primary schools			Percentage of Males and Females teachers		Number of Trained Teachers	Percentage of Trained Teachers
		Males	Females	Total	Males	Females		
1	2	3	4	5	6	7	8	9
1	1969-70	4,251	2,037	6,288	67.60	32.40	5,902	94.01
2	1970-71	4,553	2,123	6,676	68.20	31.80	6,330	94.82
3	1971-72	4,745	2,405	7,150	66.36	33.64	6,743	92.83
4	1972-73	4,683	2,581	7,264	64.47	35.53	6,959	95.80
5	1973-74	4,753	2,620	7,373	64.47	35.53	7,105	96.37

Source :
1. Administrative Officer, Vadodara District Panchayat, Vadodara.
2. Administrative Officer, Vadodara Municipal Corporation, Vadodara.

The number of trained teachers is substantial as Vadodara State had established primary training institutions for men (885 A. D.) and women (1882). Moreover, during the II Five Year Plan college was started at Dabhoi in 1959-60 and short term course of five months' duration was started for over age untrained teachers.

Basic Education

The concept of basic education was developed by Mahatma Gandhi. The main idea of basic education is that it should centre round some form of manual work, and the children should not get merely paper knowledge but should also learn some simple craft to inculcate in them a sense of self-reliance, responsibility, initiative and resourcefulness.

After Independence an intensive programme of basic education was promoted by the Education Department. The craft selected for basic schools are kitchen gardening, spinning, weaving, paper work, card-board modelling and agriculture.

The number of basic schools increased from 81 (all senior) in 1956 to 176 (including 60 junior) in 1961 to 1,466 (including 879 junior) in 1972-73. The number of students in these schools increased from 27,393 to 38,657 and 187,492 during the same period in the district.

The details of crafts taught in these schools are as under :

Crafts in Schools

Sl. No.	Year	Purely Spinning	Spinning and Weaving	Kitchen Gardening and Agriculture	Card Board Modelling	Total
1	2	3	4	5	6	7
1	1956	..	..	80	1	81
2	1961	..	..	159	1	186
3	1966	..	..	233	1	260
4	1972-73	..	..	1,430	1	1,466

Source :

1. Administrative Officer, Vadodara Jilla Panchayat, Vadodara.
2. Administrative Officer, Vadodara Municipal Corporation, Vadodara.

Ashram Schools

The Ashram Schools are residential schools and are generally situated in hills and forests in the tribal tracts. They are conducted on basic school

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pattern with agriculture as the main craft. These Schools have proved extremely useful for providing educational facilities to the Scheduled Tribes. They provide free lodging, boarding and medical facilities.

In the district, during the year 1972-73, there were 12 Ashram Schools. Out of these, 11 were for Scheduled Tribes, and 1 was for Denotified Tribe. The details of these schools are given below :

Ashram Schools, 1972-73

Sl. No.	Name of the Ashram School	Location	Taluka/Mahal	Year of establishment	Management	No. of pupils		
						1972-73		
1	2	3	4	5	6	Boys	Girls	Total
1	Saidvisan	.. Saidvisan	Chhota-Udepur	1963	Vadodara Jilla Panchayat Varg Seva Mandal, Vadodara.	82	38	120
2	Tharkuva	.. Tharkuva	Sankheda	1964	-Do-	89	31	120
3	Rajupura	.. Rajupura	Savli	1963	Samagra Gram Seva Mandal, Rajupura.	90	30	120
4	Bopa	.. Bopa	Chhota Udepur	1966	Vadodara Jilla Panchayat Varg Seva Mandal, Vadodara.	60	60	120
5	Moti Chikhli	.. Moti-Chikhli	..	1966	-Do-	90	30	120
6	Dugdha	.. Dugdha	Nasvadi	1966	-Do-	90	30	120
7	Moti Sadhli	.. Moti-Sadhli	Chhota-Udepur	1954	-Do-	85	35	120
8	Waghach	.. Waghach	Nasvadi	1955	-Do-	45	75	120
9	Devhat (Devadh)	Devhat	Chhota-Udepur	1959	-Do-	90	30	120
10	Raypur	.. Raypur	Nasvadi	1962	-Do-	88	32	120
11	Katkui	.. Katkui	Tilkwada	1967	-Do-	85	35	120
12	Kavara (Chimli)	Kanara	Jabugam	1971	-Do-	25	25	50

Source :

Inspector of Ashram Schools, Gujarat State, Surat.

The students of these schools are also prepared for other certificate examinations, viz., P. S. E., Hindi, Shishta Vachan, Drawing Examination etc.

A stipend of Rs. 55 per student per month is given for maintenance in Ashram Schools for eleven months in a year. The rate of government grant is 100 per cent of the approved expenditure.

Training Facilities For Primary School Teachers

For qualitative improvement of primary education, it is very necessary that the primary teachers should have good academic qualifications and training. The pioneer work in this field was done by the Ex-Baroda State in this district. The first training college for women was established in 1882. Thereafter, the teachers' training college for males was started in 1885. The State Government had sanctioned 200 scholarships each of Rs. 7 per month to enable 200 trainees every year. The Government of India had sanctioned 100 per cent grants for training colleges during the year 1959-60 and 1960-61. As a result the number of training colleges together with the number of classes and students also increased. For qualitative improvement, following measures are taken by the State Government. Only S. S. C. passed teachers are admitted in the training college. Secondly, admission is given to the teachers who have passed S. S. C. with Mathematics and Science subjects. With 50 per cent of marks in S. S. C. Examination Scheduled Caste teachers who have obtained a minimum of 45 per cent marks are admitted.

In the year 1973-74, there were four training colleges for primary teachers in the district. The details of these training colleges are as under :

Primary Teachers Training Colleges

Sl. No.	Name of the institution	Location	Year of establishment	Male/Female	Management	Pupils (1973-74)
1	2	3	4	5	6	7
1	Government Basic-Training College	Vadodara	1885	Both	Government	938
2	Government Basic-Training College for Women	"	1882	Females	"	203
3	Government Basic-Training College for men	(Dabka)	1939	Males	"	181
4	Basic Training College for Women	Chhotu-Udepur	1964	Females	Trust	178

Source :
Director of Education, Gujarat State, Ahmadabad.

Primary School Buildings

Like training facilities for the teachers, the former Vadodara State had made good provision for the school buildings to house the increasing number of pupils in the village schools. The policy of the State was to provide buildings for all schools, by distributing the expenditure over a number of years. Accordingly in the year 1885. His Highness sanctioned Rs. 50 to 60 thousand every year for buildings for Anglo-Vernacular Schools alone. But the problem of providing buildings for all schools remained unsolved. The Government undertook the responsibility of sharing part of the expenditure, if the people also were ready to contribute their part. And the rules were framed for receiving such contributions, the principle was that the people must pay at least one fourth of the total amount for school building for their village. This provision gave encouraging results.¹

Before Independence, there were 194 Primary School Buildings constructed in the district. During the First Five Year Plan, in the year 1953-54, the number of school buildings constructed was 46. During the Second and the Third Plan periods, 448 new buildings were constructed and programme of constructing new school buildings continued in the Fourth Five Year Plan. During the period from 1969 to 1972-73, the number of new school buildings constructed was 363.

SECONDARY EDUCATION

The secondary education constitutes a vital link between the primary and the college education. Broadly speaking, secondary schools are intended to impart education suitable for pupils in the stage of adolescence.

After merger the progress of secondary education has been very rapid in the district as may be seen from the following table.

Sl. No.	Year	No. of Schools	Students		
			Boys	Girls	Total
1	2	3	4	5	6
1	1950-51	74	N. A.	N. A.	12,137
2	1956-57	67	N. A.	N. A.	11,066
3	1961-62	95	N. A.	N. A.	38,078
4	1965-66	128	39,258	17,857	57,115
5	1968-69	168	38,929	21,629	60,558
6	1973-74	214	39,893	21,576	61,469

Source :

1. District Census Handbook 1961, Baroda.
2. District Census Handbook 1971, Part X-C-I, Vadodara District.
3. District Education Officer, Vadodara.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, 1923, p. 330.

The above table shows a remarkable growth between 1961-62 and 1973-74 when there was an addition of 119 new schools and 23,391 students. The percentage increase of the schools was 125.26 and students was 61.42 per cent.

Out of 214 secondary schools in the district, 8 were English medium schools, 7 Marathi medium schools, 3 Sindhi medium schools, 2 were Hindi medium schools. The rest were Gujarati medium schools.

Lala Lajapatrai Central School is the only Higher Secondary School run by the Central Government. While others are run by local bodies and private educational associations.

Number of Students Appearing and Passing the Secondary School Certificate Examination 1961 to 1972

Sl. No.	Year	Appeared		Passed		Percentages of Result	
		March	October	March	October	March	October
1	2	3	4	5	6	7	8
1	1961	..	5,532	2,527	2,348	707	42.44
2	1966	..	8,275	2,833	4,239	980	51.23
3	1970	..	10,987	3,811	4,816	1,161	47.98
4	1971	..	10,942	4,963	4,483	1,524	45.36
5	1972	..	11,514	..	5,253	..	45.62

Secondary education has been made free from the year 1972 onwards throughout the State.

STATEMENT XV-5

The Area Per School and the Population Served by each School is as Under

Sl. No.	Name of the taluka/mahal	Area in sq. km. (1971 Census)	Population 1971 Census	No. of Secondary schools (1973-74)	Area covered per school, sq. km.	Population per school
1	2	3	4	5	6	7
1	Vadodara	..	670.0	665,306	91	7.3
2	Karjan	..	601.9	114,782	15	40.1
3	Padra	..	534.6	171,308	21	25.4
4	Savli	..	792.0	161,022	19	41.5

STATEMENT XV-5—concl.

Sl. No.	Name of the taluka/mahal	Area in sq. km. (1971 Census)	Population 1971 Census	No. of Secondary schools (1973-74)	Area covered per school, sq. km.	Population per school
1	2	3	4	5	6	7
5	Vaghodia	..	561.5	89,269	7	80.6
6	Dabhoi	..	632.6	145,160	20	31.6
7	Sankhoda	..	722.6	133,676	13	55.5
8	Jabugam	..	799.4	137,756	6	133.2
9	Chhota Udepur	..	1,379.1	188,927	7	197.0
10	Nasvadi	..	535.2	72,661	4	133.8
11	Tilakwada	..	244.6	43,542	3	81.5
12	Sinor	..	292.5	56,656	8	36.5
Vadodara District		7,788.0	1,980,065	214	36.3	9,252

Source :

1. State Institute of Education, Ahmadabad.
2. District Census Handbook 1971, Part X-C-I, Vadodara.

(1) It is interesting to note that about 70.00 per cent of the schools were located in four talukas, viz., Vadodara, Padra, Savli and Dabhoi. The highest number of secondary schools (91) was found in Vadodara taluka, and the lowest in the Tilakwada mahal, (3).

(2) It is noteworthy that in Vadodara taluka, area covered per school was only 7.0 sq. km. This favourable situation regarding educational facilities could be ascribed to the efforts made by the Ex-Vadodara State and also because of proximity to the State Capital.

(3) From the above statement it can be seen that in Chhota Udepur taluka the area covered per secondary school was 197.00 sq. km. This is so because the forests covered most part of the areas in this taluka. In the Jabugam and Nasvadi talukas the areas covered per school was very extensive 133.00 sq. km. While in the Karjan, Padra, Savli, Dabhoi and Sinor talukas the area covered per school was between 30 to 40 sq. km.

In the talukas of Vadodara, Karjan, Padra, Savli, Dabhoi and Sinor, the population covered per school was below 10,000 while in the rest of the talukas population covered per school was above 10,000.

Multipurpose Schools

A Multipurpose School is a high school with provision for variety of courses from which students can choose according to their psychological and vocational needs.

The Government of India appointed the Secondary Education Commission in 1952, under the Chairmanship of Dr. A. Lakshmanaswamy Mudaliar, to review the entire field of secondary education. One of the important recommendations of the commission was establishment of multipurpose schools as a corrective to the existing "Single Track" system. In these institutions the provision is also made in the curriculum for subjects like fine arts, technology, commerce, agriculture, home-science in addition to the general subjects. In the year 1971, there were 6 such schools as under :

<i>Name of the School</i>	<i>Type of Streams</i>
(1) Maharani Girls' High School, Vadodara	Home Science
(2) Sayaji High School, Vadodara	Technical and Commerce
(3) Sarvajani High School, Vaghodia	Agriculture
(4) Baliadev Vidyamandir, Itola	Agriculture
(5) Smt. N. T. Patel, Vinaymandir, Rajpura (T. Savli) and	Agriculture and Home Science
(6) Lok Vidyalyaya, Bamanpura-Lamadapur	Agriculture

PHYSICAL EDUCATION

Physical Education in Gujarat prior to 1854 was non-existent in the modern sense of the term. There were "Akhadas" run by individual "Pahelvans" and they taught 'Kusti', 'Malakhamba', etc., to their pupils. In 1865, Shri Narayanguru Deodhar who had come to Vadodara from Benaras after the first War of Independence in 1857 helped the pupils of two Akhadas situated at Shastri Pole and Kakasaheb Payaga at Dandia Bazar. Thereafter, Prof. Manekrao introduced some changes in the traditional system. He added the new element of "Sangh-Vyayam" for *Lathi*, *Magdal*, *lezim*, etc. He coined Hindi terms for different *Vyayam*. In 1912, at the instance of Sir Sayajirao III, he coined Hindi terms for mass drill. About 35,000 youths took training under him. On the 1st May 1909, Shri Chhotubhai Purani started a Laxminath Vyayam Shala at Bajwada in Vadodara city.

CHAPTER XV—EDUCATION AND CULTURE

During the year 1914-15 gymnasium teachers and gymnastic apparatus were provided in 46 Vernacular Schools and a large number of secondary schools. Indian games were played in primary schools under the supervision and guidance of class masters. The Inspector of Physical Education supervised these activities.¹

Physical Instructors were also attached to most of the important secondary and primary schools. Special training was given to teachers under training in gymnastics and games.

In 1938, the Government with a view to introduce compulsory physical education in all the primary and secondary schools of the State introduced it in the beginning in 10 schools of Vadodara City and Vadodara taluka. By 1940-41 it formed a part of the regular curriculum in all schools of the State and intensive physical training course was introduced for the untrained teachers.

During the State rule, the Boy Scouts Movement was started in the Vadodara City in the year 1919. It was extended outside Vadodara City at the end of 1919-20. In 1919-20, the Boy Scouts gave training to the boys of the Depressed Classes in their special boarding houses at Vadodara. The Girl Guide Movement was started in the year 1935-36.

After Independence, physical education continued to be a compulsory subject in the primary and secondary schools of the State, and in 1974, Physical Education was one of voluntary subjects at the S. S. C. Examination. The teacher to be qualified in physical education is required to be C. P. Ed. (under graduate) or D. P. Ed. (graduate). The details of these activities and schemes sponsored in the district are described below.

District Sports

District sports were organised in November every year by the District Sports Committee under the presidentship of the Collector and the District Education Officer as Secretary. After 1973, this pattern is discontinued and sports competitions are now held, twice every year as autumn and winter meet under the auspices of the All India Schools Games Federation and under the control of the District Sports Council, which is a statutory body constituted by the Government of Gujarat; its Chairman is the District Education Officer and Secretary is a Government servant under the control of the Director of Youth and Cultural activities, Gujarat State.

Sports competitions are held twice (the autumn meet and the winter meet) every year at the district and at the National level for secondary

1. *Boroda State Administration Report, 1914-15.*

schools only. Generally sports competitions are held at Taluka level in September-October, in November-December at the district level and at the State level they are held in January. The competitions are held for three categories of participants (1) Age-group 1-15 years, (2) Age-group 15-18 years and (3) Open for all.

In the year 1973-74, in all 4,937 students participated at taluka level sports competitions. Out of these, 1,302 participated at district level competitions. In the year 1973-74, 21 students were sent for the National Sports Competitions at Indore in winter meet competitions.

Following are some of the voluntary institutions promoting sports and physical education. They are recognised and receive grant-in-aid.

- (1) Shri Laxminath Vyayam Mandir, Vadodara.
- (2) Shri Mahila Krida Mandal, Vadodara.
- (3) Shri Gujarat Krida Mandal, Vadodara.
- (4) Prof. Manekrao Jummada Vayam Mandir, Vadodara.
- (5) Shri Madhavashta Ramat Kendra, Vadodara.
- (6) Shri Narayanguru Bal Prabhu Vyayam Shala, Vadodara.
- (7) Shri Guru Umraopuri Vyayam Shala, Vadodara.
- (8) Shri Maharastra Vyayam Shala, Vadodara.
- (9) Shri Ramdas Vyayam Shala, Vadodara, and
- (10) Shri Arva Kanya Vyayam Mahavidyalaya, (Itola) Vadodara.

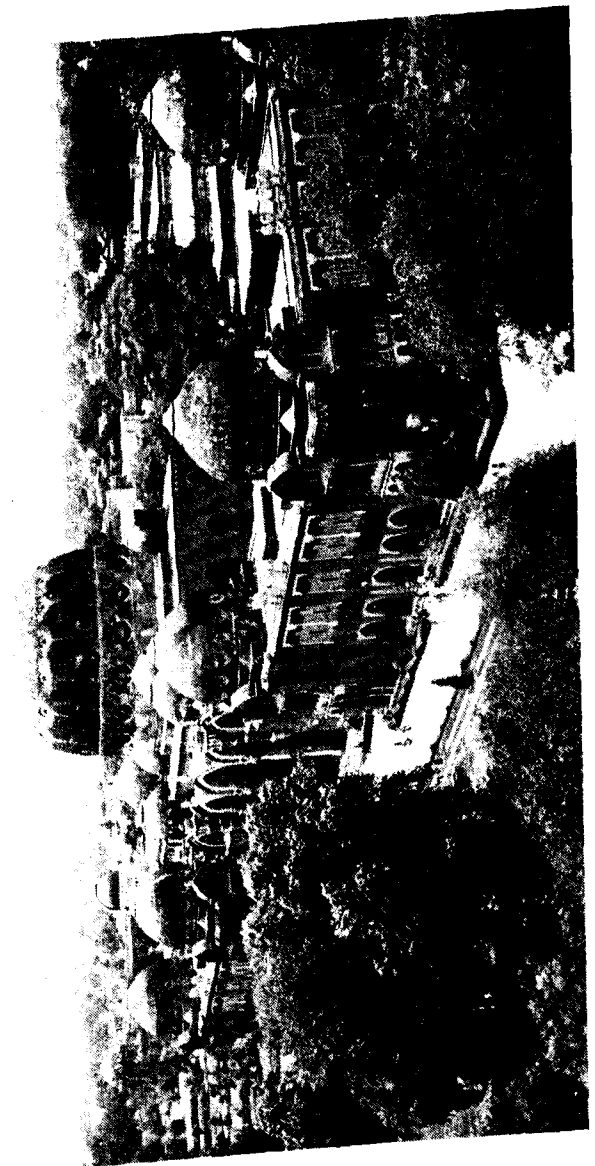
About 1,000 boys and girls regularly attend these gymnasia and get training in sports and other activities.

HIGHER EDUCATION

The first college with 30 students was started at Vadodara in the year 1882. In the year 1890 the college was recognised for full courses in Arts, Science, Civil Engineering and the Diploma in Agriculture. In the year 1892, it was recognised for the first examination of Law. This was the second college opened in Gujarat during the 19th century. The courses of Law, Agriculture and Engineering were dropped afterwards.

In the year 1934-35 the number of students was 1,097 including 48 girl students, and 33 post graduate students in the college. The number of students from the Baroda State was 735, i. e., 67 per cent. There were hostel facilities and College Library with 17,006 books.¹

1. Baroda State Administration Report, 1934-35.



College Campus of the M. S. University

CHAPTER XV—EDUCATION AND CULTURE

In 1936, to house the expanding science departments. Shree Sayaji Jubilee Science Institute was built in commemoration of the Golden Jubilee of his Late Highness Sir Sayajirao III at a cost of Rs. 6 lakhs. There was a technological annexe attached to this institute which housed four well equipped laboratories. The number of students was 1,610 including 164 women students and 110 post-graduate students in 1941.

During the sixty years of its life, 1881-1942, the college expanded in to a full-fledged Arts-Science. College affiliated to the University of Bombay.

The Training College for Secondary Teachers, at Vadodara came into existence in 1935. In 1938, the college was affiliated to the University of Bombay.

The Pratapsinh College of Commerce and Economics was opened at Vadodara in 1941. The total number of students admitted in the year 1941 was 167 in the first year and 30 in the intermediate classes.¹

On the eve of Independence, there were 3 colleges in the district.

(1) The Baroda College Arts and Science sections—There were in this college 1,513 students including 196 women-students.

(2) *Secondary Teachers Training College*—The College admitted in June 1947, 58 candidates for the B. T. and 28 for the T. D. Classes. There were 12 research students registered, two reading for the Ph. D. degree and 10 for M. Ed. degree. Refresher Course was conducted during the year for 25 graduate teachers.

(3) The Pratapsinh College of Commerce and Economics had 701 students.

M. S. University, Vadodara

The idea of establishing a University at Vadodara started engaging the attention of the former Government of the State in the year 1909. Some schemes for the establishment of the University were framed but none of them materialised. The Second Commission of 1915 had clearly expressed for the first time about the need for a University in Vadodara. The subject came up again in 1919, when a Committee consisting of Principal Clarke, Professor Widgery and Shri N. K. Dixit was appointed to explore the possibilities of establishing a University at Vadodara. An elaborate report was drawn up with a concrete proposal for establishment of a University. Individual schemes for this purpose were also submitted by Professor Sheshadri of the Benaras Hindu University and by Prof. Widgery of the

¹ *Baroda State Administration Report, 1941-42.*

Vadodara College. About this time late Maharani Chimnabai Gaekwad offered a generous donation for the foundation of a Women's University at Vadodara but nothing concrete came out of these investigations and suggestions.¹ The Baroda University² Commission of 1925-26 made out a strong case for the establishment of a Unitary Residential University² at Vadodara having the Faculties of Arts, Science, Technology, Agriculture, Economics, Commerce and administration. Besides the Faculties, the University was to have the Institute for Oriental Studies, the Institute for Gujarati Studies, the School of Fine Arts, the School of Nursing and the School of Domestic Science. Provision was also made for extension programmes, the Library movement as a University extension movement and compulsory medical examination. Although circumstances at that time were not favourable to the establishment of a separate University, the idea was not given up, but the question was taken up only in 1947.

In 1947, a Commission under the Chairmanship of Shri K. M. Munshi was appointed by Pratapsinh Rao, the ruler of Vadodara to consider the question of the establishment of the University. The Commission by end of 1948 in its report recommended the establishment of a teaching and a residential University with powers to affiliate mofussil colleges, including the Central Library, the Oriental Institute and the Kala Bhavan. The Commission also recommended that the Government should give a block grant of Rs. 25 lakhs annually to the University for first five years.

The Government of Vadodara headed by Dr. Jivraj Mehta in its Order No. (R) 169-39, dated 21st February, 1949, passed the Baroda University Act. After the merger of the State, the jurisdiction of the University was restricted to the area within a radius of ten miles from the University Office. The University started working on 30th April, 1949. Shrimati Hansaben Mehta was the first Vice-Chancellor.

By June, 1950 the institutions taken over were re-organised into six Faculties of Arts, Science, Education and Psychology, Medicine, Commerce, Technology and Engineering. The First Year and the Intermediate classes in Arts and Commerce were organised into a separate institution called the Intermediate College. Three new Faculties of Fine Arts, Home Science and Social Work were also started from June, 1950. The management of the Baroda Sanskrit Mahavidyalaya and the Gujarati Section of the Old Baroda High School were taken over by the University from the then Government of Bombay in 1951. The first examinations of the University were held in March-April, 1951. Afterwards the following faculties and institutions were added :

1. RAJYAGOR S. B., *Education in Gujarat from 1854-1954*, (1958), p. 142.
2. The Maharaja Sayajirao University of Baroda, *Twenty Fourth Annual Report*, 1972-73, Baroda.

(1) Faculty of Fine Arts, (2) Faculty of Home Science, (3) Faculty of Social Work, (4) Faculty of Law, (5) Oriental Institute, (6) College of Indian Music, Dance and Dramatics, (7) Baroda Sanskrit Mahavidyalaya, (8) Preparatory Unit-Arts and Commerce, (9) Preparatory Unit-Science, (10) M. K. Amin Arts and Science College and College of Commerce, Padra, and (11) Polytechnic.

When the University first started functioning in April, 1949, it had, as its total strength 2,962 students, of whom 131 were post-graduate students, 902 degree class students and the remaining were reading for the under-graduate diploma or certificate courses. In the next twenty-three years, the total enrolment of students in the University has risen from 2,962 to 17,986 registering a six-fold increase. The average yearly increase in students enrolment since 1949 has been nearly 653.

University Teachers and the Staff-student Ratio—The total number of the teachers of the University during the year 1972-73 was 954 as against the total students enrolment of 17,986. This gives an over-all teacher-student ratio of 1 : 18.85. The staff-student ratio over the last five years is indicated below :

Sl. No.	Year	No. of University Teachers	Students Enrolment	Staff-Student Ratio
1	2	3	4	5
1	1968-69	856	14,396	1 : 16.8
2	1969-70	867	15,311	1 : 17.6
3	1970-71	887	15,930	1 : 17.9
4	1971-72	914	16,590	1 : 18.1
5	1972-73	954	17,986	1 : 18.95
			Say	1 : 19.00

Source : The Maharaja Sayajirao University of Baroda, *Twenty Fourth Annual Report*, 1972-73.

Beside these, in the district 7 colleges are affiliated to Gujarat University and 1 to S. N. D. T. University, Bombay.

Out of all the colleges in the district there were 14 colleges/sections teaching professional subjects like : Law, Commerce, Medicine, Engineering, Education, etc., while rest were teaching non-professional subjects like Arts, Science, etc.

The following statement shows the detail of these institutions and colleges in the district :

STATEMENT XV-6

Colleges in the Vadodara District

Sl. No.	Location	Name of the college	Year of establishment	Own building	Hostel facilities	Management	Courses of studies	No. of teaching staff	No. of students of 1972-73		
									Teaching staff	Full-time	Total
1	2	3	4	5	6	7	8	9	10	11	12
<i>Colleges run by the M. S. University, Vadodara ;</i>											
1	Vadodara	Faculty of Arts	1949	(own)	Yes	M. S. University.	B. A., M.A. and Ph. D., B. Lib., Library Science, <i>Diploma</i> and <i>Certificate</i> courses in foreign languages.	102	1,620	1,106	2,726
2	"	Faculty of Science.	1949	"	"	"	B.Sc., M.Sc. and Ph.D., <i>Pre-Medical</i> One year course after Preparatory Science, <i>Diploma in Laboratory</i> ; Two year course after S. S. C. E.	172	1,132	463	1,615
3	"	Faculty of Education and Psychology	1935	"	"	"	(i) B. A., M. A., Ph. D., Psychology (ii) B. Ed., M. Ed., Ph. D., Educational Administration, (iii) Post-graduate Diplomas—Educational Administration, Guidance and Counselling, (iv) Under-graduate Diplomas—Education, Early Childhood and Education.	46	189	263	452
4	"	Faculty of Commerce	"	"	"	"	(i) B. Com., M. Com., Ph. D. (ii) Post-graduate Diplomas—Banking Co-operation, (iii) Under Graduate Diploma Co-Operation.	32	2,114	650	2,764

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5	"	Faculty of Medicine 1949 (A) Medical College	"	"	"	"	M. B. B. S., M. Sc., M. D., Ph. D., M. S. Post-Graduate Diplomas in Anaesthesia, Clinical Pathology, Obstetrics, and Gynaecology, Laryngology and Otolaryngology, Medical Radiology and Electrolgy, Ophthalmology, Child Health, Venereal Diseases, Tuberculosis Diseases, Details in the Section of Technical Education	126	664	130	794
6	"	Faculty of Technology and Engineering.	1949	Own	Yes	"	(i) M.A. (Fine), Ph.D., Post-Graduate Museology, Diploma, Certificate and Post-Diploma courses in Fine Arts, <i>Subjects</i> —Art History, Art Criticism and Painting, Applied Arts, Graphic Arts, Painting and Sculpture, Bronze Casting, Lithography, Pottery and Ceramics, Photography, Process and Block-Making and Wood Crafts	204	2,532	55	2,607
7	"	Faculty of Fine Arts	1950	"	"	"	(1) M.A. (Fine), Ph.D., Post-Graduate Museology, Diploma, Certificate and Post-Diploma courses in Fine Arts, <i>Subjects</i> —Art History, Art Criticism and Painting, Applied Arts, Graphic Arts, Painting and Sculpture, Bronze Casting, Lithography, Pottery and Ceramics, Photography, Process and Block-Making and Wood Crafts	34	177	60	237
8	"	Faculty of Home Science.	"	"	"	"	(1) B.Sc., (Home), M.Sc., (Home) and Ph.D., (2) B.Sc. (Home) and M.Sc. (Home) (i) Home Management (ii) Home Science Education and Extension Education, (3) Post-Graduate Diploma (i) Nursery school Education (ii) Dietetics, (4) B.Sc. (Home) General Home Science.	50	4	817	821
9	Vadodara	Faculty of Social Work	1950	Own	Yes	M. S. University	The Faculty offers a two years Post-Graduate degree course (M. S. W.) for a career in Social Work.	10	44	38	82
10	"	Faculty of Law	1950	"	"	"	(1) LL.B., LL.M., and Ph.D. in Law, (2) Post-Graduate Diploma Courses. (a) Diploma in Taxation Laws and Practices (D. T. P.), (b) Diploma in Labour Laws and Practice (D. L. P.).	26	789	98	887
11	"	Oriental Institute.	1927	"	"	"	B.A., M.A., Ph.D. Post-Doctorate Researches.	7	N.A.	N.A.	50

STATEMENT XV-6—contd.

No. 1	Location 2	Name of college 3	Year of estab- lish- ment 4	Coll- ege Build- ing Own/ Rental 5	Hostel faci- ties 6	Management 7	Courses of studies 8	No. of teaching staff 9	No. of students of 1972-73		
									Males	Females	Total
12	Vadodara	College of Indian Music, Dance and Dramatics	1886	own	yes	M. S. University	(i) Two year Post-Graduate course leading to the Degree of Master of Music, Dance and Dramatics. (ii) Four year course leading to the Degree of Bachelor of Music (B. Mus.) in Music, Dance and Dramatics.	46	393	377	770
13	"	Baroda Sanskrit Mahavidyalaya.	1915	Rental	"	"	(iii) Five year course in Music-vocal, Instrumental Diploma in Music, Diploma in Dancing. (iv) Two year Post-S. S. C. Course leading to Diploma in Dramatics.	15	99	15	114
14	"	Preparatory Unit- Arts and Commerce	1952	"	"	"	(i) Vachaspati (ii) Acharya and Shastri (iii) Vishtad (Special Paurit Course) (iv) Certificate Pura, Rigved Yajniki, Shukla Yajurved, etc. One year duration in Arts and Commerce.	"	1,010	560	1,570
15	"	Preparatory Unit- Science.	1965	"	"	"	One year duration in Science-Course.	"	891	164	1,055
16	Padra	Shri M. K. Amin Arts and Science College and College of Commerce, Padra.	1966 1967	"	"	"	B. A., B. Com., Preparatory Science, Arts and Commerce.	33	1,288	173	1,461

DISTRICT GAZETTEER : VADODARA

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No.	Location	Name of college	Year of establishment	Coll- ege Build- ing Own/ Rental	Hostel faci- ties	Management	Courses of studies	No. of teaching staff	No. of students of 1972-73		
									Males	Females	Total
17	Vadodara	Polytechnic	1957	Own	"	"	Details in Section Technical Education.	80	1,287	5	1,292
<i>Colleges affiliated to Gujarat University :</i>											
18	Sankhela	Kapadia N. M. N. S. Arts College.	1962	Own	Yes	Sankheda Sarvajanic Education Trust, Sankheda.	B. A. (3 years degree).	13	120	80	200
19	Bodeli	F. C. Kapadia Arts College.	1964	Rental	"	Bodeli Vibhag Kelavani Mandal.	B. A. (3 years degree).	12	167	66	233
20	Dabhoi	Shri C. N. Patel Partikuvila Arts College and Dabhoi Nagarpalika Science College.	1958	"	"	Baroda District Education Society, Dabhoi.	B. A. and B. Sc. (3 years degree).	36 Arts Science	184 176	132 19	316 195
21	"	College of Education	1970	"	"	"	B. Ed. (1 year)	10	89	21	110
22	"	Commerce College.	1968	"	"	"	B. Com. (3 years degree).	13	519	36	555
23	Chhota Udepur	Shri Natwarsinhji Arts and Science College.	1964	Own	"	Virendra Education Society, Chhota Udepur.	B. A., B. Sc. degree courses.	31 Arts Science	147 73	83 13	230 86
24	Miyagam (Karjan)	H. C. Patel Arts and Commerce College.	1964	"	"	Karjan-Taluka Kelavani Mandal.	B. A., and B. Com. degree courses.	24 Arts Science	90 307	34 21	124 328
<i>College affiliated to S. N. D. T. University-Farbay.</i>											
25	Vadodara	Mahila Mahavidyalaya.	1923	"	"	Kelavani Trust.	B. A. and B. Ed.	28	"	1,311	1,311

PROFESSIONAL AND TECHNICAL EDUCATION

In the past, urgent need was not felt for technical education, as the district was mainly dependent on agriculture. Professional education was imparted through a system of apprenticeship, which trained an individual in the technique of production handed down from father to son. Such education was hereditary and traditional. In the field of technical education, the former Baroda State had made pioneering work by founding the Kala Bhavan as early as 1890. The work of the Institute was divided into different departments such as : (1) Mechanical Engineering, (2) Electrical Engineering, (3) Civil Engineering, (4) Chemical Technology, (5) Photography and Process, (6) Architecture and (7) Intermediate Industrial classes. The Institute offered diploma and certificate courses and intermediate industrial school course. Instructions in Diploma courses was imparted in English, while in other two courses it was given in the Vernacular (Gujarati).

The number of students in the Kala Bhavan at the end of July, 1946, was 436. Besides the Baroda Juvenile Reformatory, constituted under the Children's Court Act, was in existence during the State regime. It was under the control of the Principal of the Kala Bhavan. Vocational subjects were taught in this institution. In addition to the standard primary course of studies, the boys were taught carpentry, agriculture and gardening. In 1945-46, there were ten inmates in this institution.

In the year 1972-73 there was one Engineering College, one Polytechnic, one Technical High School Centre and one Industrial Training Institute in the district. Over and above, there were 28 institutions giving instruction in courses such as tailoring and cutting, carpentry, wireman, apprentices women's and children's Garments, Embroidery and fancy work etc. Details about some of those institutions are as under :

1. *Baroda State Administration Report, 1945-46.*

STATEMENT XV-7
Technical Institutions in the District

Sl. No.	Name of the Institutions and its location	Management	Year of starting of Institution	Subjects taught in the Institutions	No. of students 1972-73	No. of staff (teaching)
1	Faculty of Technical and Engineering, Vadodara.	M. S. University, Vadodara.	1949	A. Post-Graduate : 1. Civil Engineering 2. Mechanical Engineering 3. Electrical Engineering 4. Textile Engineering. B. Post-Graduate Diploma 1. Air-conditioning and Refrigeration C. Degree : 1. Civil Engineering 2. Mechanical Engineering 3. Chemical Engineering 4. Electrical Engineering 5. Metallurgy 6. Architecture 7. Electronics 8. Textile Engineering 9. Textile Technology D. Diploma 1. Textile Chemistry 2. Textile Technology	85	206
2	Polytechnic, Vadodara.	M. S. University, Vadodara.	1957	A. Diploma 1. Civil Engineering 2. Mechanical Engineering	272	137

STATEMENT XV-7—concl'd.

Sl. No.	Name of the Institutions and its location	Management	Year of starting of Institution	Subject taught in the Institutions	Students 1973-74	No. of staff (teaching)
1		3	4	5	6	7
				Electrical Engineers		
				4. Technology of Processing Oil and Gas		
				5. Technology of Production of Fertilisers		
				6. Technology of Production of Synthetic Resins & Plastics		
				B. Part-time Diploma	188	
				1. Civil Engineering		
				2. Mechanical Engineering		
				3. Electrical Engineering		
3	Government Technical High School, Vadodara.	Government	1958	1. Geometrical & Machine Drawing 2. Workshop Technology Grade I. 3. Elements of Mechanical and Electrical Engineering	391	5
4	Government Certified School, Vadodara.	Private	1949	1. Tailoring & Cutting 2. Carpentry Trade 3. Wireman-Apprentice	32	3
5	The Federation of Gujarat Mills & Industries, Vadodara.	Private	1918	Foremanship & Supervision	41	1
6	Industrial Training Institute, Vadodara.	Government of Gujarat.	1960	1. Building Construction. Draughtsman Civil & Mechanical, Electrician, Fitter, Machinist-Instructor, Mechanic, Instrument Mechanic, Turner, Wireman, Welder, Tractor Mechanic, Moulder, Mechanic-Motor-Radio, Refrigeration, etc.	661	479

COURSES IN COMMERCE

Commercial education in the State is provided through three types of institutions : (1) the Commerce Colleges, (2) the Commercial High Schools and the Multi-purpose Schools with Commerce as a course and (3) the Commercial Institutions.

The Commerce Colleges are run by or are affiliated to the University and provide three years degree course. There are 4 such colleges in the district each at (1) Vadodara, (2) Padra, (3) Miyagam (Karjan) and (4) Dabhoi.

The commercial high schools and multi-purpose schools provide a pre-vocational course of commercial education along with the general education. The commercial institutions provide instructions in such courses as short-hand, type-writing, book-keeping and secretarial practice. The course extends over four years, (Std. VIII to XI).

The following are the educational institutions teaching commercial courses. (1973-74) :

Educational Institution	Pupils
(1) The Government Commerce Centre, Vadodara	156
(2) The Sayaji High Schools, Vadodara	191
(3) The D. B. Parekh Sarvajanic High School, Sankheda	120
(4) Shri M. H. Dayaram Sharda Mandir, Dabhoi	114
Total ...	581

Over and above these, there are 22 private commercial institutions conducting classes in type-writing, short-hand, secretarial practice and accountancy, etc.

ORIENTAL EDUCATION

Sanskrit

Sanskrit learning was given special attention in the former Vadodara State. In 1882 there were 9 Sanskrit Pathshalas in the Capital (Vadodara) with 235 students on roll.

1. ELLIOT F. A. H., *Gazetteer of the Bombay Presidency*, Vol. VII, Baroda, (1883), p. 488.

In the year 1915, there were 8 Sanskrit Pathshalas in the State. Out of these one was under the control of the State and three received grant-in-aid. The late ruler Sayajirao III started an institution for preparing Purohits, Puraniks, Pandits and Shastris to meet the requirement of the modern society. Since then, advanced courses in several branches of Sanskrit learning were organised. A number of scholarships were given at the institution. Oriental schools engaged in imparting instruction in Sanskrit were given lump sum grant-in-aid. In 1918-19 there were two Sanskrit Pathshalas each at Karnali and Baroda. During the year 1922-23 there were 5 Government, 2 aided and 7 unaided Sanskrit schools in the State with 510 students. In 1945-46 there were 4 Government Sanskrit schools with 118 pupils, and five private Sanskrit schools with 127 pupils in the State. In the year 1954 there were 2 Sanskrit Pathshalas with 121 students.*

In the year 1972-73 there were 2 Sanskrit Pathshalas in the district. Details of each school is given below :

(1) The Baroda Sanskrit Mahavidyalaya established as a Pathshala in 1915, was developed into a special college preparing students upto the Ph. D. degree. It is run by the M. S. University, Baroda. In the year 1972-73, there were 114 (99 boys, 15 girls) students on its roll. The institution conducts courses like Yajnik and Pauranik (3 year's course), Visharad (5 year's course), Shashtri, Acharya and Vachaspati (2 year's course). The institution provides free lodging and boarding facilities in its hostel.

(2) Shri Jambu Brahmin Kanva Sanskrit Pathshala at Chandod, (T. Dabhoi), run by Jambu Brahman Samaj, was established in 1935 with 25 students. At present it conducts the courses of Shukla Yajurveda, Kanva and Madhyandini Samhita (કાળવ અને મધ્યાહન સંહિતા), Karma Kand, Astrology Grammar, Sanskrit literature, etc. A hostel is also attached to it. The number of students in 1972-73 was 51.

Oriental Institute

The institute was established in the year 1927. Its main work is research and publication of important unpublished work on all subjects related to

*1. Baroda State Administration Report, 1914-15.

2. Ibid., 1918-19.

3. Ibid., 1922-23.

4. Ibid., 1945-46.

5. RAJYAGOR S. B., Education in Gujarat from 1854-1954, (1958).

1. The Maharaja Sayajirao University of Baroda Twenty-fourth Annual Report, 1972-73, Vadodara.

indology. The number of publications at the end of March, 1973 stood at 156 in the Gaekwad Oriental Series and 603 other books.

5 members of the Institute are recognised as post-graduate teachers in Sanskrit and Gujarati for guiding M. A. and Ph. D. students. During the year 1972-73 the Institute guided 1 Ph. D. student and 49 M. A. students.

The manuscripts section of the Institute has a collection of 25,456 M. S. in Sanskrit, Prakrit, Pali, Apabhramsha and other classical Indian Languages and in several Modern Indian Languages including a few in Persian and Arabic. The Institute also has a well-equipped library having a collection of 34,723 books.

Critical Edition of Ramayan is a monumental work and the Institute publishes journals of the Oriental Institute, a quarterly in English and 'Swadhyaya'—a quarterly in Gujarati.

Its publications are :

(1) Gaekwad Oriental Series, (2) M. S. University Research Series, (3) M. S. University Oriental Series (Published in the Journal of the Oriental Institute), (4) Maharaja Sayajirao Memorial Lecture Series, (5) Shri Sayaji Sahityamala, (6) Shri Sayaji Balajnanamala, (7) Shri Sayaji Gramavikasmala and (8) Shri Shishujnanamala.

EDUCATION FOR THE PHYSICALLY HANDICAPPED

Welfare of the physically handicapped is now one of the important activities of the Directorate of Social Defence. The physically handicapped children are provided pre-vocational and vocational training in various crafts and industries in educational institutions. Subjects like : tailoring, carpentry, weaving, printing and book-binding, cane-work and coir-work are taught in such institutions. Blind children are educated along with other children in normal schools, so as to bring about in them integrated personality and healthy outlook towards life. In this district, the Deaf and Dumb School at Vadodara was started by a private agency with one pupil in March 1909. In the year 1910-11 there were four students including two girls. This school received grant-in-aid from Government. In 1915, this school was converted into a Government School. The Vadodara Municipal Corporation has started one day school for the deaf children in one of their municipal schools for normal children (1971). The State Government and the Government of India award scholarships to the physically handicapped students. At present there are 6 schools in the district, as detailed below.

STATEMENT XV-8

Institutions for Physically Handicaps in the Vadodara District

Sl. No.	Name of the Institution	Maximum capacity	Year of establishment	Management	No. of trainees 1972-73		
					Boys	Girls	Total
1	Government Blind School, Vadodara	50	1915	Government	50	..	50
2	Deaf-Dumb School run by Mook Shikshan Samiti, Vadodara	100	1954	Mook Shikshan Samiti, Vadodara	26	23	49
3	Home for Crippled Children, Vadodara	25	1961	Government	36	8	44
4	Baroda Association for Blind, Vadodara	25	1964	Baroda Association for the Blind Vadodara	25	..	25
5	Home for Mentally Deficient Children, Vadodara	25/50	1970	Government	50	..	50
6	Day School for Deaf Dumb, Vadodara	40	1971	Nagar Prathamik Shikshan Samiti, Vadodara Municipal Corporation	14	6	20

Source :

Directorate of Social Defence, Gujarat State, Ahmedabad.

SOCIAL EDUCATION

Besides spread of literacy, the aim of social education is to prepare responsible citizens who can participate with understanding in the activities around them and develop their latent faculties. In order to achieve these wider objectives, the programme of social education needed to be oriented to local needs and conditions as well as to the cultural level of the particular locality covered. Efforts were made to promote adult education in the district. In the Vadodara State this activity was linked with the library movement. In the year 1915 the total number of Night Schools was three in the State. No fees were charged. The pupils attending these schools belonged to the artisan and labouring classes.

The adult literacy campaign was started in May 1939. Half of the sum of Rs. 10,000 sanctioned for the purpose was devoted for maintaining classes in backward areas and the other half for classes in areas selected for intensive efforts. A bonus of Rs. 50 per batch of fifty adults rendered literate was offered to each centre. Honorary workers doing good work were given prizes of Rs. 50 to Rs. 250 per year.

Every effort was made to enlist the co-operation of the people. The number of classes during the year 1940-41 was 569 and the number of adults attending was 6,623. After Independence, the efforts of literacy drive continued but the pace was slowed down due to lack of co-operation from the people.

In 1960-61, intensive drive to make people literate was undertaken in Community Development Block and in certain cases the whole village was adopted for 100 per cent literacy. The Taluka and the beat officers were given the target of making 100 persons literate in the second test and 250 persons in the first test. In the block, Social Education Officer looked after it, while in non-Block area Assistant Deputy Education Inspector looked after it. The Regional Social Education Committee sanctioned the grant at the rate of Rs. 4 and Rs. 5 for every adult made literate. They also provided small boxes with 100 books or so for neo-literates. The present trend is to associate literacy with the vocation of the people which gives him knowledge about the technique of his vocation.

In 1966-67 there were only 3 social education classes. The number of adults made literate was 101. In the year 1973-74 the number of classes conducted was 14, and the number of adults made literate was 453.

EDUCATIONAL MANAGEMENT

During the Vadodara State regime Government was mainly responsible for promoting modern education in early stage. Later on, the condition began to exchange. Nationalist movement, religious reformists movement and Gandhiji's constructive movement for social change inspired many spirited and enthusiastic people to contribute and promote educational activities. They had started a number of educational societies in the former Vadodara State. In the Bombay State also private enterprise played its part adequately in the field of secondary education, when the Ex-Vadodara State was merged into it. After the formation of Gujarat State, the general policy of Government is that secondary education should be conducted by private agency with financial assistance from the State. The activities of some of the leading educational societies in the district are given below :

(i) *Aryakumar Sabha*

The institution was started in the year 1921 by some Aryasamajists. During this period, Shri Atmaramji, one of the leading Aryasamajists was entrusted the responsibility of management and supervision of Antyaj Schools of the State. His son, Anandpriyaji, started Aryakanya Vidyalaya at Itola near Vadodara (1925). This institution was transferred to Vadodara city in the year 1929. It has thereafter, become one of the leading centres of girls'

education in Gujarat. It was started on the model of the Gurukul system. The institution started training girls for 'Snatika' course. The Degree was not recognised by the Government and the institution was not aided by the Government. It teaches, besides general subjects, fine arts, practical domestic science, etc. At present, besides this, following institutions are run by the Aryakumar Sabha :

- (i) Aryakanya Mahavidyalaya (Secondary School), Vadodara.
- (ii) Aryakanya Suddha Ayurveda Mahavidyalaya, Vadodara, affiliated to the Gujarat Ayurved University, Jamnagar.
- (iii) Aryakanya Vyayam Mahavidyalaya, Itola, conducted C. P. Ed. course for one year.
- (iv) Lalitkala Mahavidyalaya, Vadodara.
- (v) Anand Balwadi, Vadodara.
- (vi) One hostel.

In the year 1973-74, there were 409 girl students in the Aryakanya Vidyalaya (School section), 134 in the Aryakanya Ayurved Vidyalaya, 65 in Vyayam Vidyalaya, 144 in Lalit Kala Vidyalaya and 54 in Anand Balwadi.

Sir Sayajirao Diamond Jubilee and Memorial Trust, Vadodara

Late Sayajirao III had earmarked Rs. 1 crore on the occasion of Diamond Jubilee Celebrations. Sir Pratapsinh who succeeded him also set aside an equal amount on the occasion of his accession for the promotion of education and welfare of the State's subjects. On the suggestion of (late) Sardar Vallabhbhai Patel, a trust with an aggregate sum of Rs. 2 crores and 9 lakhs was formed on 17th August 1950.

The objective of this trust was to utilise the income of Diamond Jubilee Fund for the improvement of the condition of life by the development of education among rural folk of Ex-Vadodara State. Secondly, the income of the Memorial Fund was utilised for the purpose of M. S. University, Vadodara.

At present, the trust manages 2 free hostels, (one for boys and other for girls). The trust also gives scholarships to deserving students on the basis of merit. Over and above this, the trust also helps M. S. University in its various needs. Rs. 48,70,000 was given to the M. S. University during the years 1950-1966.

Webb Memorial Girls High School, Vadodara

The Society was established by the Gujarat Conference of the Methodist Church in Southern Asia. Webb Memorial Girls High School was established in 1889 by this Society. At present, the trust is managing following educational institutions in the district.

- (i) Webb Memorial Girls High School including primary school and middle school, Vadodara.
- (ii) Hill Memorial High School, Vadodara.
- (iii) Methodist Technical Institute.

All these institutions are attached with hostels for the students.

Rosary High School Trust, Vadodara

The trust was established in the year 1935. The educational institutions managed by this trust are (i) Rosary Pre-Primary School, (ii) Rosary Primary School, and (iii) Rosary High School. It also manages one hostel for the benefit of students from rural areas.

Vadodara Jilla Kelavani Mandal, Dabhoi

The Mandal was established in the year 1956, with a view to promote higher education. It manages following colleges :

Sl. No.	Name of the Institution	Type of Institution	Year of establishment	No. of Pupils 1972-73		
				Boys	Girls	Total
1	Shri C. N. Patel Farti-kuiwala Arts College and Dabhoi Nagarpalika Science College	Arts and Science	1958	184	132	316
			1961	176	19	195
2	Commerce College	Commerce	1968	519	36	555
3	College of Education	Education	1970	89	21	110

There is a hostel attached for the benefit of these colleges.

Vakal Kelavani Mandal, Mobha Road, (Taluka Padra)

Vakal Kelavani Mandal was established in the year 1934. In the initial stage, it was named Vakal A. V. School Committee. Thereafter, since 1940, it is known as Vakal Kelavani Mandal. It manages the following institutions :

(Bk) H-112—89 (Lino)

- (i) Vakal High School and Vidyarthi Grih, Mobha Road.
- (ii) Vakal Vidyalaya and Vakal Vidyarthi Ashram, Bajuva.
- (iii) Vakal Chhatralaya, Guest House and Seva Kendra, Vadodara.

The Mandal also publishes 'Vakal Patrika' and runs Vakal Career Centre, and Vakal Sahayak Pustakalaya, for the benefit of students of the Vakal area. Text-books for high schools and colleges are also distributed to the needy by this centre.

Jeevan Sadhna, Vadodara

The society was established in the year 1956 with a view to imparting education to the age group of 3 to 16 years. Secondly, the society aimed at developing the school as a community centre and extend co-operation to like minded agencies. Under its management, there is one high school (Gujarati medium), one primary and pre-primary schools with Gujarati and English media. The society also runs classes of tailoring, printing, book-binding, toy-making, etc. It also manages one nutrition centre for economically backward children. In the year 1974, the total number of students in all these institutions was 1,500.

CULTURE

The culture of an area is determined by two lines of evidences. One of them is the remains of the materials left by men in their natural setting and the other is the existence of written records. For the very early period of cultural history the material remains are used, while for the later period both the evidences are used.

The earliest evidence of Man is provided in the Vadodara district by the crude stone tools discovered in the river Orsang around Sankheda-Bahadarpur. Similar evidence from other parts of Gujarat indicates that these early inhabitants roamed over Vadodara district in search of food and game. The rich forest wealth might have kept sufficient leisure for them. The generally carefree life of these groups would have undergone change specially in the periods affected by droughts and less rainfall on one side and heavy floods on the other.

With the passage of time this culture was replaced by other succeeding cultures of stone ages, the evidences for them are found on different rivers, dunes and open areas where water was available. During the long period of the existence of these cultures men did not build houses or develop villages, but continued their life in the district, probably under shady trees and small camp sites, that shifted from time to time due to many reasons.

The last phase of the stone ages is marked by the small stone tools known as microliths. People of this group in other parts of Gujarat were in contact with the chalcolithic towns and villages of 4th/2nd millenium B. C. In Vadodara district this cultural contact requires to be established.

The first villages in Vadodara district are found to be existing at Sathod and Timbarva in the Dabhoi and Sinor talukas. They were probably established in the early or middle part of the 1st millenium B. C., by people who made Black and Red Pottery and used Iron. This cultural activity is seen all over India and indicates a very active period of development of villages and towns, some of which are still in flourishing condition. If the literary evidence is to be relied on, parts of Early Indian literature of Vedic and Orthodox literature of Puranas and Buddhist traditions refer to this age. When this culture was existing, influence from Gangetic basin in the north was felt in the presence of small quantity of pottery known as Northern Black Polished Ware. This pottery indicates that movements of people was going on during the later part of the 1st millenium B. C., all over India. Its association with Mauryan levels signify that the culture of Vadodara district had its own share in the Mauryan period and succeeding periods.

Culturally the most important contribution of Gujarat is through its ports. The Vadodara district did not possess any port on its territory; but the roads to the hinterland moved through it. On it centres like Timbarva, Karvan, Akota, Sathod, Ajabpura developed.

Out of them Karvan became very famous due to the activities of Lakulisha of the Saivite School of the Lakulisha-the Pasupata system. Tradition ascribes him to Avakhala and Karvan. The latter was the main centre of his activity and hence it is very well noted in this school. Lakulisha seem to be active in the first quarter of the second century of Christian Era. During the same period and in succeeding centuries Karvan was a large settlement, where people from different parts of the country met. The business community of this as well as other centres of the Vadodara district transacted the business in foreign imported materials, specially from the Roman World.

The religion of Lakulisha spread all over India and probably in other parts of Asia also. His images in the Vadodara district are found from many places around Karvan. They are also known from Vadodara, Makani and other sites, indicating thereby that Vadodara district took its rightful place in this cultural activity of Ancient India. The continuous traditions at Karvan were further developed by the local gentry and a centre of study is being developed here.

The other important centre was Akota, that has been engulfed by its own suburb of Vadodara. This centre indicates that Jainism, specially its

Svetambara sect was very prominent here. Beautiful images, of this sect are discovered from here. They along with many sculptures of Saiva, Vaishnava, S'akta and Saura religions indicate that flourishing schools of sculpture and architecture contributed their might in the cultures of Vadodara district, specially in the period before 1000 A. D., and the trend continued in the later period also.

Interestingly, after 1000 A. D., the period of political struggles and moving armies is easily discerned in the building of fortifications, on one side and existence of martyrs whose testimony is given by the memorial stones found from a number of sites. Specially this phenomenon is very common in the 13th century A. D. The historical records of the defeat of Karna, father of Siddhraj Jayasimha near Vadodara, the movements of the Parmars of Dhar, the Chaulukyas from North-Gujarat and Yadavas from Deccan speak about the time of trouble for Vadodara and adjacent districts. Both archeology and literary records point out that prior to the conquest of Gujarat by Delhi Sultans, the political conditions at least in Vadodara district were highly disturbed.

The cultural life of the people, however, was active. The building activities continued in Vadodara, Dabhoi, Salad, Dumad, Tundav and in a number of other centres. Sanskrit was being used in inscriptions and slowly the local language was also developing. Vadodara and other towns were mentioned in the contemporary literature. With the political situation in highly unstable equilibrium, the advance of the powers from Delhi gave a shattering blow to the old order, and a new politico-cultural situation developed in Vadodara district along with other parts of Gujarat.

After 14th century, new elements entering the field are the Islamic mosques, makbara and persian language. They slowly moved in the area. The Manjalpur mosque is one of the earliest mosque here. Probably Mankani follows suit. These are small creations on a new plan ; but the old order also continued and hence bilingual inscriptions are seen with Persian and Sanskrit, or Sanskrit and Gujarati. Vadodara district seems to have gained prominence and the population have added new elements from Central Asia and North India.

Together with these changes, marked development of the Vadodara district seem to have taken place as a border zone between the independent States of Champaner and Gujarat. It had its own share of the 15th and 16th century Culture. In Vadodara district some fortifications grew up. Vadodara itself was fortified, and the same could be noted for some towns. The cities with their garrisons were the centres of much activities, but towards the end of the 16th century Vadodara along with Gujarat became the part of the so called Mughal Empire.

During the greater part of the 17th century Vadodara seems to be culturally active. It produced the greatest mediaeval Akhyankara, Kavi Premanand, who is one of the towering personalities of Gujarati literature. He elevated Gujarati diction by his *akhyanas* or Puranic narrative poems, which, sung or recited before the people, have helped to give its special tone to the Gujarati character. Although narrating mythological tales, he introduced living characters and realism, and so brought in a new spirit in Gujarati literature. He was the master of the Akhyan form of Gujarati poetry. This form had also earlier been used by another poet of Vadodara, Nakar in the 16th century. In the hands of Premanand it became the most powerful instrument of social education and entertainment. He also drew beautiful pen-pictures of Gujarati marriage customs, details of costumes dresses and ornaments, relationship existing between the mother-in-law, the daughter-in-law and the sister-in-law and rituals at the time of the child-birth and many such homely moments. Among his disciples were his son Vallabh, Ratneshwar of Dabhoi, Haridas of Vadodara, Virji settled in Vadodara and Dwarkadas of Vadodara, who gave glimpses of the contemporary society. Girdhara the author of Ramayana was also a product of Vadodara. In 18th century the well-known poet Dhiro flourished at Gothada near Savli, Narhari of Vadodara was a prominent Vedanti Poet.

In the religious sphere, the introduction of Vallabh School, the Kabir panthis, the Saivites, besides a number of Islamic groups enriched the culture in the 16th-18th centuries.

The 18th century is a period of turmoil especially in the early part, but that led to the introduction of Maharastrian elements in the cultural life of Vadodara. Vadodara itself became the capital of Gujarat. From this place armies moved in different parts of Gujarat and other parts of India. The growth of the Gaekwad Court had its own cultural impact. The activities of Haribhakti, Samal Bechar and other bankers and Sardars of the Gaekwads had developed in the town and the district many cultural activities.

Special noteworthy contribution of Vadodara district in the cultural sphere is the activity of Dayaram of Dabhoi, Bapusaheb Gaekwad of Vadodara, and the Jain Muni Yashovijayaji also from Dabhoi. Dayaram (1767-1852) was the last great poet of Middle Gujarati tradition. He was a devout vaishnava singer of sweet tenderness and melody. His memory has been associated with Chandod and Dabhoi, his lyrics, popularly known as 'Garabis' are short forms of *garbas*, which depict one situation or one sentiment picked up from the life of child-Krishna. Some of his best *garabis* were addressed by the *gopis* to Krishna. Though used for the main purpose of providing popular songs for the *garaba* dance, it was a great vehicle for lyrical expression. In his writings Dayaram, betrays a considerable influence of Braj-bhasha. His language was the most perfect used so far

by any poet of Gujarat; and his words were so arranged that sense, sound and meaning blended in harmony to express one brief experience with perfect art. The Jain tradition was fairly strong and that had its own impact. The Gaekwads are Shaivites and many Shaiva temples in Vadodara bear testimony to their zeal. The religious toleration of the State in which the fairs and festivals of different religions were celebrated by all is a distinct cultural trait that was observed in Vadodara district.

The martial spirit of the rulers and their love of games, and sports laid the foundation of many activities, in this direction. The Sathmari, wrestlings, race of horses, elephants; flight of rams, buffaloes and many entertainments were a common experience in Vadodara district, in the 18th and the succeeding centuries.

Music, dance and paintings were also a common heritage of culture of Vadodara district. Music had its aspirants in Pusthiya marg temples and in the Bhajan Mandalis. Akhyana Kirtans by Manabhatt and Buvas were extremely popular in the district. Vadodara had a rich tradition of classical music and Khanderao and Sayajirao III patronised master musicians like Nasirkhan, Maulabux, Alladiayakhan, etc. The school of Indian music was started in Vadodara in the year 1886 A. D. with Prof. Maulabux as its head. Nasirkhan, a native of Lucknow was a well-known instrumentalist and was an able player of Pakhwaj. He was patronised by Wajidali Shah, the last Nawab of Lucknow and he came to the court of Khanderao after the Nawab of Ayodhya was dethroned. Shri Bhaskarbuva Bakhle of Kathor got his training in music under Haridas Vishnubuva and Maulabux.

An all India music conference was held at Vadodara in 1916. The well-known artists of Saurashtra and Gujarat along with north Indian and South Indian musicians attended this conference. Pandit Vadilal, Dayabhai Shivram, Faiz Mohamed Khan, Khan Rehmatkhan, Pandit Omkar-nath, Pandit Bhatkhande, etc., participated in this conference.

Similarly the music college helped in the spread of vocal and instrumental music of classical style. Besides the city encouraged dancing also, often in court circles and even in public shows. Being supported by the court and people, Vadodara was studded with musicians and dancers. The memories of the founder of the Indian musical notation Maulabux and the famous vocal master Faiyazkhan are still fresh in the galaxy of men and women who contributed to this art. The Maharaja Sayajirao Gaekwad of Vadodara gave valuable encouragement to the development of music. He gave employment to deserving musicians but instead of maintaining them as ornaments of his court, he offered their services to the people. He set up a school of music and employed eminent musicians like Ustad Fayyaz Khan and

Maulabux to give free instruction in music to the people. Notation system was devised by Maulabux. A special syllabus for music was introduced in the Primary and Secondary Schools of the State.

Paintings of 18th centuries serve in temples and houses of merchant princes. Several buildings, secular as well as ecclesiastical, found in different parts of the State possess interesting mural paintings. These paintings usually represent scenes from the Ramayana or the Mahabharata, as well as the episodes of Krishna-lila. The mural paintings in the spacious building in Vadodara city which goes by the name of Tambekarvada are, possibly, the best specimens. (They not only represent epic scenes and Krishna-lila but the fights which took place between the Marathas and the English). The pictures depicting the Maratha sepoy, cutting the heir of a Ferangi, the uniform of the soldiers and the accoutrements, the pursuit of a human couple on camelback by two horsemen, the picture of a lady in toilette, or Sadyahsnata and the fight of rams are noteworthy. On the whole these frescoes are marked with gracefulness, proportionate delineation and contrast in colours reflecting great credit on the artist who painted them.

The pictures in the Vitthal *mandir* near Mandvi, an important area of Vadodara city, form a separate group. They are painted on lacquered wooden panels fixed in the walls of the *sabha mandapa*, and represent Indian *ragas* and *raginis* with labels written in Devnagari Script. They were said to be drawn during the reign of Srimant Malharao Gaekwad by some painters from Jaipur in Rajputana.

There are interesting frescoes on the walls of the houses and public places of Bhadarva village, 15 km. from Vadodara city. These paintings represent folk art of the late 19th century. Walls of the houses are full of beautiful paintings. In the long decorative panels, the subjects of the paintings are *Danlila*, *Samudra Manthan*. Some paintings are in squares where there are beautiful paintings depicting episodes in the life of Lord Krishna, an horsemen drinking water given by a woman at the well, a woman playing with a parrot, the doorkeeper, elephants, King's procession, games, episode of Krishna and Bodana, an European Officer with bunch of flowers in the hands going on a ride. All these pictures belong to the last decade of the 19th century. From the study of the Mural paintings one would find certain characteristic features which are common to all the Gujarat School of Paintings, though they betray the influence of Maratha rule, in dress, costumes, and ornaments. The style of the Sari is like that of a Maratha woman (tucked up by tightening the ends). Besides paintings, there are a number of wooden architectural works which display jumping tiger, elephant with big trunk, horse with wings and decorative arches.

The Risheswar temple is near the village of Bhadarva. Around this temple, there is a cluster of 22 to 25 small temples constructed in the

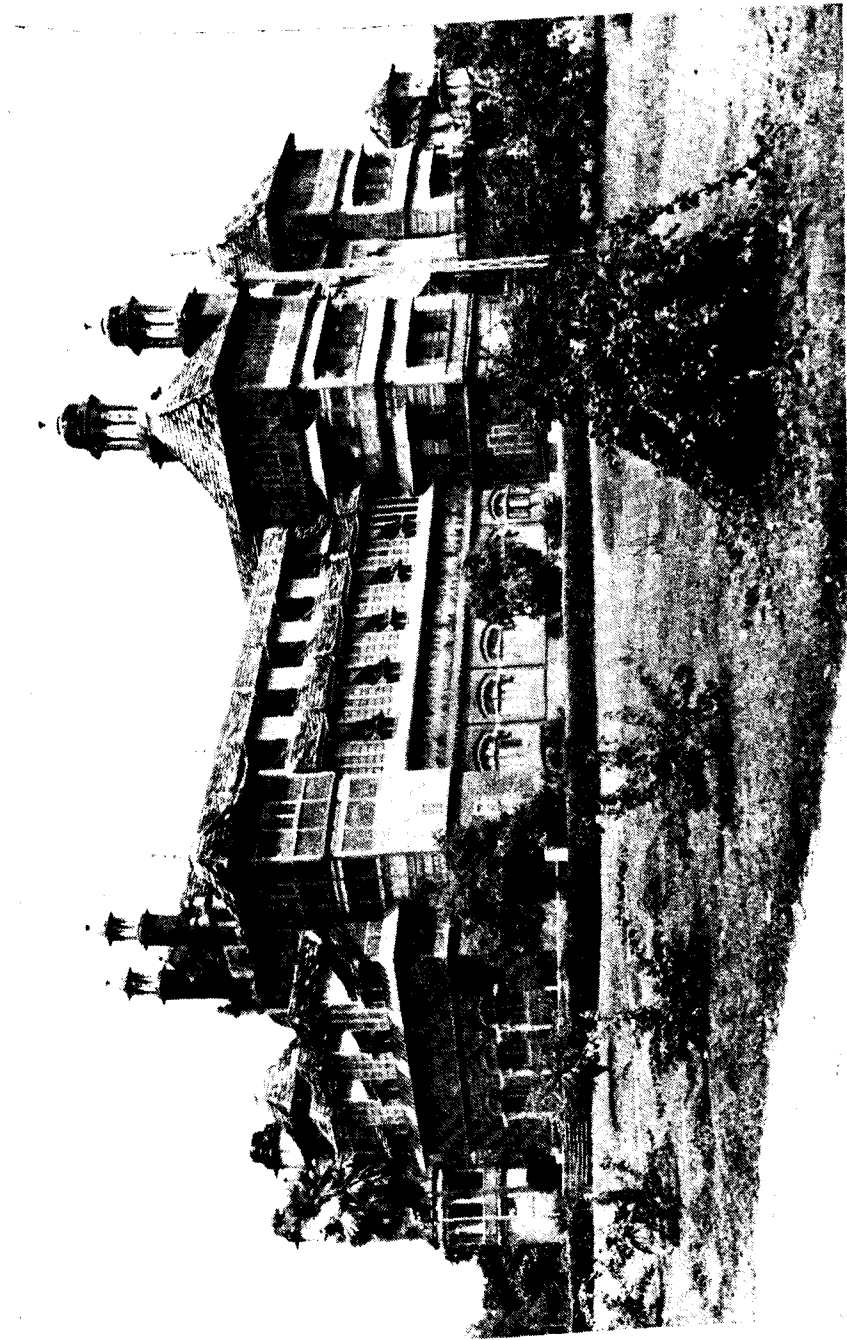
memory of Gosains. On the walls of these temples both outside and inside, and on the ceilings, there are decorative arches and panels. The paintings on the walls outside the temples are, however, washed out or disfigured. The subjects of the paintings on the walls and ceilings of the temples are Rag-Ragini, Bhogasans, Krishna-lila, episodes from Ramayan and Shiv Puran, life of Krishna, and the routine life of Sadhus, camp of Naga Bavas, processions, an eagle carrying 5 elephants on its wings, Raslila, peacock eating insect or serpent. The selection of the colour of the pictures in the Risheswar temples seems to be the work of expert artists. Line-work and composition also betray expert's hands, while paintings on the wall of houses at Bhadarva village, however, are not so much articulate, the lining are rough and thick. Similar paintings exist at Karvan and Chaudod also.

The classes on the line of western school of paintings were started at Kala Bhavan, Vadodara which was established in 1890. In these classes students were given lessons in Greek and Roman paintings and sculpture. Shri Sayajirao, as a lover of art bought paintings of Raja Ravivarma and of other Indian and western artists.

Vadodara became a cultural centre with many of its institutions of learning and research. Its Sanskrit Pathshala gave instructions in Veda, Purana, Jyotish, Ayurveda, Vyakarana, Sahitya and in other Sastras. It attracted Sastris and scholars from many parts of India.

These rich traditions of Vadodara district reached a high pitch of culture in the later part of the 19th and early part of the present century. Both the city and the State of Baroda made a name for beautiful architecture in the country. The old *Imarat Khana* was a small establishment in the city before 1875 A. D. Its primary job was confined to looking after palaces, temples and *dharanshalas*. The construction of public buildings became Sayajirao III's objects of special care. He chose Major Mant and R. F. Chisholm as State Architects while services of other European experts were also sought. Mant designed the famous Laxmi Vilas Palace and the Dufferin Hospital building. The famous Baroda College building with its unique dome, the new Makarpura Palace, the *Nyaya Mandir*, the Museum and the Khanderao Market building were designed by Chisholm. One Mr. Coyle designed the new Kalabhavan building which now houses a part of the Faculty of Technology and Engineering of the University. The same designer created the State General Hospital and renowned Kothi Offices as well. The Lal Bag Palace now housing the Railway Staff College was designed by one Mr. Stevens, while the old structure of the present Experimental High School and the Faculty of Education and Psychology of the University was constructed by the famous London architect Sir W. Emerson.

In the field of drama, Vadodara district and Vadodara city had special facilities in theatres and encouragement to new dramas performed for the first



Baroda Museum and Picture Gallery
(By Courtesy—Directorate of Museums, Vadodara)

time. Royal patronage was extended to this activity. The Gujarati Deshi Natak Samaj and Marathi Bal Gandharva Natak Mandali, etc., took advantage of this patronage and presented many new plays in Vadodara.

Vadodara attracted many reformers and revolutionaries in the early part of the 20th century. The activities of revolutionaries in Vadodara and Ganganath near Chandod are well-known. The most noted revolutionary and philosopher Maharshi Arvind Ghosh had his initiation in Yoga in Vadodara district and the message of yoga became universal with the spread of Arvind's ideas.

The Narmada flowing on the Southern border of Vadodara district had many religious centres, special mention must be made of the centres like Chandod with adjoining Karnali, Ganganath and the Malsar-Sinor and Nareshwar. Chandod was a centre of vedic learning, one Sanskrit Pathshala was run by Jambu Brahman Samaj. Here the Vedic studies and religious activities of Saints like Rang Avadhuta are well-known.

Vadodara, became a centre of many reforms, such as abolition of child marriage, untouchability, permission of divorce and widow remarriage and developing universal free education, library activities and programmes of rural uplift, buildings, roads, dams and public conveniences, etc. The use of regional language in the administration was also a significant cultural achievement. The institutions of higher learning, the colleges and model farm and its research laboratory, the oriental institute and similar organisations were developed by the State.

The educated people require reading material and hence good library service and publication of books in Gujarati, Marathi, Sanskrit and English also were undertaken by the Vadodara State and it is continued through the institutions that are active even to-day. These activities gave impetus to a galaxy of scholars like manilal Dwivedi, Hargovinddas Kantawala, Chhotalal Narbheram Bhatt, Manishankar Ratnaji Bhatt, Ramanlal Vasantlal Desai, Manjulal Majmudar who developed public institutions and gave important contribution in many fields. One such prominent institution is S'reyas Sadhaka Adhikari Varga, which has carried out activities in religious and cultural field. All these and other scholars, not only wrote extensively but contributed their scholarly talent in publication of dailies, weekly and monthly journals in Gujarati, Marathi and English and this trend has expanded considerably.

Another important cultural institution is the Baroda Museum and Picture Gallery. This museum houses some of the finest specimen of Art and Sculpture. Its treasures of Numismatics, paintings, woodwork

and minor Arts are extremely valuable. The collection of the European Art and specially the paintings is probably one of the finest collection in India. The museum service and its series of Publications have earned its place in the cultural life of India. This Museum activity began by Savajirao III, continued in the establishment of Fatehsinhrao Museum. This Museum set in the midst of the Lakshmi Vilas Palace gardens, consists of sixteen rooms and galleries specially made for the museum purposes and opened to the public in 1961. The museum contains copies of Greek, Roman and later European sculptures and of masterpieces of classical European pictorial art, as well as original works by the sculptor Phanindra Nath Bose and by A. Felici, a versatile Italian who for a number of years was court artist at Vadodara. There are a number of family portraits also and a great collection of paintings by Ravi Verma. The collection of European paintings include some original old masters but are mostly by artists highly esteemed about turn of the century. The museum has also displayed French furniture and late but good Chinese and Japanese art collections. The display was arranged by Dr. H. Goetz, a noted museum director and art historian and thus can be proud of being the best displayed museum among the Maharajas' Museums. Similarly in the M. S. University good Museums have developed in a number of Faculties and Departments, specially note-worthy museums are those of the Department of Ancient History, Culture and Archaeology, Medical College, Art History, etc.

Economically Vadodara also started being industrialised from the late 19th century. It developed textile, chemical and engineering industries as well as developed the technical education through its Kala Bhavan.

Thus the background for the modern development of the district was well laid and hence in Independent India, Vadodara district became well-known for its University and the industrial growth and other cultural activities.

The cultural activities of the district expanded in the M. S. University of Baroda, with its ten Faculties in which many cultural institutions such as the Sanskrit Mahavidyalaya, the Oriental Institute, the College of Indian Music, Dance and Dramatics, the old Baroda College with its Arts and Science wings, the Pratapsinh College of Commerce and Kalabhavan were absorbed and further developed. Besides these, the faculties of Fine Arts, Home Science, Law, Social Work and Medicine were added so that the cultural activities, training and research developed. The further growth of institutions like Premanand Sahitya Sabha, Marathi Vangmaya Parisad, and Amateur dramatic Societies, Dancing and Music clubs added significantly to the cultural activities in Vadodara district. The Dayaram Sahitya Sabha at Dabhoi and the Jain libraries at Vadodara and Dabhoi are contributing significantly to the cultural activities.

Besides these the Islamic festivals, music and poetry are being cultivated in Urs that go allround the year. The Id and Moharram are celebrated in the city. The beautiful library of Juma Masjid with its fine records is important institute in the city.

During the State rule in camp area of the Residency, christians were more active. Their churches, convents and associated institutions contributed to the varied culture of Vadodara district.

The impact of movements like those of Aryasamaj, Theosophy and Sarvodaya movement inspired by Gandhian ideology was also felt, absorbed and institutionalised.

After Independence, the rapid growth of industries from the earlier base has changed the urban pattern of Vadodara. Many larger industries have actively participated in the cultural activities by financing them and by developed facilities within their own area for their workers. The growth of many international organisations like the Rotary Club has long history in Vadodara, Lions, Jaycees and Giants are contributing their own share in cultural activities. There are many amateur groups who play a vital role in the sphere of Music, Dance, Drama, Games, Sports and other activities.

The Municipal Corporation of Vadodara has also taken over cultural and recreational activities. It has taken over the old Zoo, developed museum of Health and established a series of lectures, and it organises dramatic, sports competitions and takes a leading share in the cultural activities. Such functions are taken over by similar bodies of local self-Government in different towns and villages of the district.

This survey would indicate that the culture of Vadodara district represent a mosaic of different aspects of socio-cultural life in its varieties, that make the variagated culture of the district.

LIBRARIES

The first man to strive for free public libraries was late Shri Motibhai Amin. Libraries opened by him are known as "Mitra Mandal Libraries". With a view to orient students to read good books, and also to start reading rooms and libraries in villages, he approached the students of Male Training College Vadodara and explained them that if they agreed to send him Rs. 10 or 15, he would arrange to send them books and newspapers of the value of Rs. 20 or 30. In this way he started libraries in fifty villages. Thus began from July 1906, the activity called Mitra Mandal Pustakalaya for opening free public libraries.

He managed to get the private library of royal palace at Mandvi for Central Library. In order to inspire the students to read he started a scheme of examination, "Shista Vachan", (selected reading). Secondly, he started "Kumar Mandal" where the teachers used to read instructive books or publications on Sunday before the young men. Thirdly, he framed "Pustakalaya Sahayak Sahakari Mandal" (1924). The Mandal used to buy and supply the books and helped libraries in their management, by starting a scheme of permanent fund, he aimed at helping libraries when they were short of popular contributions. Lastly, he started a monthly called, "Pustakalaya" in 1925. He had the honour of organising first Pustakalaya Parishad in Gujarat at Patan.

Motibhai Amin was a silent worker. In 1933, in appreciation of his service for the cause of library movement, the title of "Granthalaya Udyama Pitamaha" was bestowed upon him at the All India Library Session held at Madras.

The development of free public libraries in the State was by far not the least among the notable achievements of the late Sayajirao's long reign. He opened the Library Department with Mr. Borden as its Head and Shri Motibhai Amin as his Assistant. Mr. Borden framed a scheme of 10 years programme by which the whole State was to be covered with a net work of village, taluka and district town libraries with a Central Library at Baroda serving as a State Library.

The original scheme was that there should be four types of libraries. The district town libraries should be situated at the chief town of each of the four districts of the State; the town libraries should be situated at the taluka head-quarters or in places having more than 4,000 population; the village libraries should be situated in villages and fourthly, integrating and supplementing the services of these libraries through the travelling libraries operated from Baroda. The grant from the department in each case was conditional upon the people raising an equal amount from amongst themselves. The scheme envisaged a hierarchy of institutions the village libraries being supervised by town libraries, which in their turn would be looked after by the district town libraries, and these by the Department of Libraries.

The Library Department was a branch of Educational Department and was supported entirely by the State. The work of the Department was broadly divided into two main heads, city and mofussil. The city library was represented by the Central Library established in 1877, while mofussil library was doing activities in rural areas. According to the *Gazetteer of the Baroda State* (1923), Central Library's collection was amounted to one lakh books, including the books of Sayaji Library. Beside this, travelling library section had 17,958 Volumes, the work of which was supervised by the

Central Library. The Central Library circulated about 80,500 volumes annually in the Baroda City and 11,000 in the State through the travelling library system. This was believed to be the largest circulation made by any library in India.

In the district in the year 1972-73, there were 794 libraries of which one was Government library, one was Municipal, 7 Mahila libraries, 5 Bal libraries, 22 were other libraries and 758 were village libraries. The details of the some of the important libraries are given below :

STATEMENT
Leading Libraries in the

Sl. No. 1	Location 2	Taluka 3	Name of the library 4	Year of Establishment 5	Whether housed in its own building or in a rented building 6
1	Chhota Udepur ..	Chhota Udepur ..	Shri Chandrasinhji Library	1876	Own
2	Vadodara	.. Vadodara	Shri Jaysinhrao Sarvajani Pustakalaya	1876	Government Building
3	Dabhoi	.. Dabhoi ..	Shri Sayaji Sarvajani Pustakalaya	1889	Own
4	Padra-Sankhoda	Padra-Sankhoda	Sarvajani Pustakalaya Vaidya A. S. Sarvajani Pustakalaya	1893	Own
5	Vaghodia	.. Vaghodia ..	H. N. Mane Sarvajani Pustakalaya	1897	Own
6	Savli	.. Savli ..	Aloni Sarvajani Pustakalaya	1906	Own
7	Karjan Nasvadi	.. Karjan Nasvadi ..	Sarvajani Pustakalaya Sarvajani Pustakalaya	1907	Own
8	Sinor	.. Sinor ..	Shri Sayaji Swetochhav Sarvajani Pustakalaya	1907	Own
9	Karvan	.. Dabhoi ..	Patel J. J. Sarvajani Pustakalaya	1907	Own
10	Chhani	.. Vadodara ..	Mitra Mandal Sarvajani Pustakalaya	1907	Own
	Bhayali	.. ..	Sarvajani Pustakalaya	1959	Own
	Koyali	.. ..	Shri P. J. Patel Sarvajani Pustakalaya	1911	Own
11	Vadodara	.. Vadodara ..	Central Library	1910	Own
12	Sokhada	.. Vadodara ..	Shri M. L. Sarvajani Pustakalaya	1912	Own
13	Tilakwada	.. Tilakwada	Shri Sayaji Silver Jubilee Sarvajani Pustakalaya	1917	Own
14	Bharatpur	.. Sankhoda ..	Sarvajani Pustakalaya	1920	Own
15	Pavi-Jetpur	.. Jabugam ..	Natvarsinhji Sarvajani Pustakalaya	1930	Own

XV-9**Vadodara District, 1972-73**

Classification of books in different languages					Total No. of books 12	Type and Management of the libraries 13
Gujarati 7	Hindi 8	English 9	Marathi 10	Others 11		
4,956	497	1,079	..	148 (Sanskrit)	6,680	(Municipal) Nagar Panchayat Chhota-Udepur
3,600	300	5,000	8,000	400 (Sanskrit)	17,300	Managing Committee
6,618	693	1,858	1,192	453 (Sanskrit) 657 (Urdu)	11,471	Managing Committee
7,673	537	733	763	84 (Sanskrit)	9,790	Managing Committee
12,367	486	799	323	..	13,975	Managing Committee
10,261	486	1,047	406	64 (Sanskrit)	12,264	Managing Committee
6,007	514	992	272	16	7,801	Managing Committee
7,760	657	1,570	730	562 (Sanskrit)	11,279	Managing Committee
7,812	113	203	86	..	8,214	..
3,383	55	60	52	56 (Sanskrit)	3,606	Managing Committee.
2,990	150	20	..	..	3,160	Shri Pragati Mandal.
4,528	251	69	..	..	4,848	..
61,586	9,556	58,018	44,364	6,411 (Urdu) 804 (Sindhi)	180,739	Gujarat Government
5,827	27	74	..	..	5,928	Managing Committee
5,391	183	134	96	19	5,823	Managing Committee
3,533	165	271	34	254	4,557	Managing Committee
3,591	..	125	..	..	3,716	Managing Committee

STATEMENT

No. 1	Location 2	Taluka 3	Name of the Library 4	Year of Establish- ment 5	Whether- housed in its own building or in a rented building 6
MAHILA LIBRARIES					
1	Karjan	.. Karjan	.. Sarvajanik Mahila- Pustakalaya	1907	Own
2	Dabhoi	.. Dabhoi	.. Shri Bhakta Kavi Daya- ram Mahila Pustakalaya	1926	Rental
3	Sinor	.. Sinor	.. Sayaji Swetochhav- Mahila Pustakalaya	1933	..
4	Savli	.. Savli	.. Shri A. K. Mahila Pustakalaya	1946	..
	Koyali	.. Vadodara	.. Sarvajanik Mahila Pustakalaya	1958	..
5	Vaghodia	.. Vaghodia	.. Kasturba Mahila Pustakalaya	1955	Own
6	Vadodara	.. Vadodara	.. Shri Jaysinhrao Sarva- janik Mahila and Bal- Pustakalaya	1959	Government Building
BAL LIBRARIES					
1	Dabhoi	.. Dabhoi	.. Shri Bhakta Kavi Daya- ram Bal Pustakalaya	1927	..
2	Karjan	.. Karjan	.. Bal Pustakalaya	1929	..
	Vaghodia	.. Vaghodia	.. Shri H. N. Mane Sarva- janik Bal Pustakalaya	..	..
	Koyali	.. Vadodara	.. Bal Pustakalaya	1958	..
3	Savli	.. Savli	.. Shri M. P. Gandhi Bal- Pustakalaya	1936	..
OTHER LIBRARIES					
1	Manjalpur	.. Vadodara	.. Sarvajanik Pustakalaya	1912	..
	Haripur	.. ..	.. Sarvajanik Pustakalaya	..	..
	Subhanpura	.. ..	.. Sarvajanik Pustakalaya	..	..
	Akota	.. ..	.. Sarvajanik Pustakalaya	..	..
	Vadodara	.. ..	.. Smt. Hansa Mehta Library	1950	..

XV-9—concl'd.

Classification of books in different languages					Total No. of Books 12	Type and Management of the libraries 13
Gujarati 7	Hindi 8	English 9	Marathi 10	Others 11		
948	..	..	..	..	948	Managing Committee
2,735	190	18	..	109	3,052	"
1,763	..	..	..	..	1,763	"
1,905	..	..	..	..	1,905	"
1,005	..	..	..	..	1,005	"
3,892	150	..	..	..	4,042	"
500	..	..	1,000	..	1,500	"
3,731	532	2	..	10	4,283	Managing Committee
1,058	306	154	..	..	1,518	Karjan Sarvajanik Pustakalaya
..	..	..	..	..	..	..
918	..	..	..	..	918	Managing Committee
3,916	..	..	..	..	3,916	Savli Aloni Sarvajanik Pustakalaya
1,595	..	..	..	..	1,595	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	..	..
..	..	..	..	..	256,635	M. S. University Library Department

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

In the courts of the Indian princes, there always existed certain groups of learned persons proficient in different subjects. Among the Maratha States it was the custom to encourage instructions in Indian systems of learning, such as the *Vedas*, the *Shastras*, the *Puranas*, astrology and medical science. A stranger visiting the state in search of employment as *Vaid* or *Hakim* was examined by a committee of experts in Indian system of medicine and after satisfying their tests, the experts recommended him either for a monetary reward or for an employment. The ruler and the ruled had implicit faith in the *Vaids* who studied the Ayurved or the Science of Life and Health. Each court had a number of such Indian practitioners and the Vadodara State was no exception.

However, no record exists of any medical department in the State prior to the reign of Sayajirao II (1819-1847). Medicines were prescribed by the court *Vaids* or *Hakims* in the presence of patients and a trustworthy man was then dispatched to buy such medicines from the market. However, these court *Vaids* or *Hakims* were not expected to serve the people who could call them only on payment. As such the State had made no provision for supply of medicines to the people, except that they could obtain such costly medicines from the State '*Silekhana*' as were not available from the open market.

Khanderao (1856-1870) attached a *Vaid* or *Hakim* to each of his army regiments and troops. Medical institutions were attached to the battalions in which western medicines were kept. The rudiments of medical department were thus brought into existence during his reign. The first public dispensary in Vadodara was opened in 1876-77 and was named Jamnabai Dispensary.

The medical department was organised by Raja Sir T. Madhavrao, Dewan of Vadodara, (1875-1881) an able administrator who introduced a number of reforms in the State. Maharaja Sayajirao III, on assumption of full regal powers in 1881 adopted a liberal policy and a definite programme for providing medical relief to the people of the State. Thus between 1881 and 1919, an extensive programme to provide all district towns with hospitals and all taluka towns with dispensaries was carried out. The same period saw the establishment of two great hospitals in the city, the Countess of Dufferin Hospital in 1886 and the State Hospital in 1907. In 1919, a programme was adopted for opening dispensaries in rural areas so that medical help would be available within five miles of every village. The

programme was completed by 1945 when 69 new dispensaries were established.¹ The Government also adopted a policy according to which small dispensaries in charge of Sub-Assistant Surgeons were opened wherever people of town/village or a municipality or local board resolved to pay either a lump sum of Rs. 10,000 or contribute Rs. 900 per year towards their upkeep.

The programme was fully implemented by 1945-46. The extension of medical relief for women and children also received careful and constant attention of the Government. With the establishment of the Maharani Shantadevi Trust in 1939, all efforts in this direction were co-ordinated thus receiving a new impetus. The trust established about 30 maternity homes in the State.

Anti-tuberculosis measures were undertaken by the State by opening a fully-equipped hospital named as Shri Padmavati Tuberculosis Hospital and Sanatorium near Vadodara in 1943. The State encouraged medical practitioners and *Vaid*s to settle down in rural areas by offering them subsidies for opening Ayurvedic dispensaries.

As regards public health, the State Government undertook a number of measures. It introduced compulsory registration of births and deaths and made vaccination and revaccination compulsory. Sanitation was made the principal function of the municipalities in towns and the panchayats in villages. To fight the epidemic of malaria, surveys of affected and threatened areas were undertaken.

The Ayurvedic system of medicine was very popular in the past. However, magical rites were performed and oblations offered to deities for effecting wishful cure of various diseases. For example, Shri Shitala Mata, the presiding deity of smallpox must be appeased to keep clear of this disease. Even now there are a large number of people in this district especially in villages, who would prefer this course of treatment in this and certain other diseases.

The climate in the district as a whole is dry and hot from March until the break of the monsoon. During October and the greater part of November the climate is more unwholesome than at any other time of the year owing to the damp heat caused by the drying up of the soil.

The climate in talukas of Vadodara, Savli, Padra, Karjan, Dabhoi and Vaghodia is commonly supposed to be more healthy than that of Sankheda and Tilakwada.

1. *The Baroda Administration Report*, (1945-46), p. 15.

The diseases most prevalent in the whole of the Vadodara district, in the past were malarious fever, infection of the respiratory organs and alimentary canal, syphilis, cutaneous diseases and rheumatic affections. The general health of the city was good during the hot and the early part of the rainy season, but during the later portion of rainy season and the greater part of the cold season there was a general prevalence of malarious fever, bowel complaints, and infections of the lungs.

The chief causes of the diseases prevalent may be found in the climate, the habits and the customs of the people. To the climate must be ascribed the malarious fevers, which were extremely prevalent in Vadodara. Next in importance stand diseases of the respiratory organs. The habits and mode of living of the people give rise to various diseases of the alimentary canal, to rheumatic infections and to syphilitic and cutaneous diseases.

EPIDEMICS

In the past, the Vadodara State was often visited by epidemics of greater or less magnitude. But until modern times, no records were kept all was quickly buried in oblivion; at the best an indistinct memory remained of some event of extraordinary and exceptional importance. Such was the occurrence of an epidemic of cholera in 1863-64. The cholera first appeared among the regiments which had returned from Bombay and Poona in February, 1864. The epidemic thereafter spread in Vadodara and raged with fury; by the end of March, houses were left empty. The daily death-rate was appalling and it is roughly guessed that the victims numbered between three and four thousands.

In April 1875, cholera again broke out in the city. By the end of June, there were 901 ascertained cholera cases of which 581 recovered and 320 died. In 1877 cholera was prevalent in the city and the district but it did not take a serious form.

In 1878, cholera was introduced into the city of Vadodara from some outlying villages. There were 98 cases of which 11 proved fatal. In 1879-80, the district was visited by a terrible epidemic of fever. It lasted from July 1879 to February 1880. It was so widespread in the city that not a single person altogether escaped. No less than 41,5829 indoor and outdoor patients were attended to by the medical department in the State. In the city of Vadodara, about 5,000 persons succumbed to the epidemic.

In 1881, there was cholera in the city from June to September, though the severity of the epidemic ended in August. Of 1,135 cases recorded, 590 proved fatal. Cholera was also prevalent at Chandod and Karjan where

192 cases proved fatal. The death-rate was accelerated by apathy of the people, and their superstitious fears of the goddess.

In 1916, there was a severe outbreak of cholera in Vadodara. Dabhoi was the most affected among talukas. No record is available of the subsequent outbreak of this epidemic in the district.

Plague—In 1899, the city of Vadodara was first severely attacked by this epidemic. From 1899 to 1910, about 103,390 cases of plague and 77,973 deaths were reported in the Vadodara State.

Although plague was known to have visited India during the long centuries of her history, and had even appeared in the neighbourhood of Vadodara during living memory, the knowledge of it was so dim that when sporadic cases occurred in Bombay in May 1896, it took the authorities by surprise. In the absence of scientific knowledge, such cases were put down to malaria and to typhoidal forms of fever.

Owing to the flight from Bombay of a class of people to some parts of the State in 1896 the plague made its first appearance. The Vadodara authorities, like their British contemporaries, did what they could according to their resources. They established a hospital, laid out segregation camps, restricted promiscuous emigration by issuing passes, treated the sick, and cleansed the houses. In fact, they did all that they could do, but with no great success. The search parties and the plague officers despatched by the State were dreaded as monsters. "The people dreaded their very presence and considered them as the messenger of death".¹

The merchants of Vadodara organised a hospital which did fairly good work. The same merchants, however, represented to the Government that the people might be left free as in normal times, and assured the Government that plague would then disappear. Those who had access to expert opinion, held their judgement in suspense; it was commonly thought that to touch a patient or to enter a plague infected house was 'to tempt Providence'.

Vadodara as a whole was free from the scourge, till 1927-28, when it made its appearance in the south of the State and the people were with some difficulty induced to take some precautions for their safety. This checked the spread of the epidemic. Only five cases were registered in Vadodara of which three were fatal.²

1. STANLEY RICE, *Life of Sayajirao III*, Vol. I, (1931), pp. 137-138.

2. *The Baroda Administration Report*, (1927-28), p. 269.

In 1918, a devastating epidemic of influenza raged throughout the Vadodara State. The State Medical Department, the municipalities and private associations did their best to cope with the calamity. The State made a special grant of Rs. 1 lakh for the purchase of anti-influenza drugs. Still thousands died before relief could be brought to their homes.

COMMON DISEASES

The diseases commonly prevalent in the district at present are those relating to fever, respiratory system, dysentery and diarrhoea. The incidence of these diseases is however, on decline. Deaths due to smallpox and cholera have been few and have on the whole declined. The following statement gives details of death due to various common diseases in the district between 1968 and 1972.

STATEMENT XVI-1

Common Diseases

Sl. No. 1	Cause of death 2	1968 3	1969 4	1970 5	1971 6	1972 7
1	Cholera	11	30	13	8	8
2	Plague	..	..	..	..	..
3	Fevers	5,215	5961	5,293	4,913	4,376
4	Dysentery and Diarrhoea	297	356	260	289	196
5	Respiratory system ..	803	502	428	555	481
6	Snakebite	42	46	36	42	39
7	Rabies	3	2	..	7	8
8	All Other Causes ..	9,353	10,837	10,912	11,448	11,466
	Total	15,724	17,734	16,942	17,262	16,574

Source : Director of Health Services, Government of Gujarat, Ahmadabad.

Malaria Eradication Programme

The malaria organisation works under the Directorate of Health and Medical Services. The Deputy Director of Public Health, Malaria and Filariasis (Health Section) is in the over-all charge of this work.

During the First Five Year Plan, a malaria control unit was started in this district. In the initial stages, D. D. T. was sprayed in all houses of the

district. The National Malaria Eradication Programme was launched by the Government of India, from the year 1958-59. The control programme was thus switched over to eradication programme as a joint venture of the Central and State Governments.

The main activities under the programme are : (1) indoor residual insecticidal spray twice a year in all endemic unit area, (2) continuation of active and passive surveillance programme through surveillance agencies, (3) radical treatment of all cases showing malaria parasites in their blood, (4) epidemiological investigation of malaria cases to find out genesis of infection in a region, and (5) health education through the organisation staff with a view to creating awareness of the dangers arising from malaria.

The incidence of malaria in the district increased from 1075 in 1968 to 58,051 in 1972. However, no case has proved fatal.

The Smallpox Eradication Programme

Smallpox is considered among the formidable enemies of public health. The Vadodara Municipality has been doing useful work for eradicating this disease. Compulsory vaccination was introduced by it during the year 1952-53. There is also a vaccinating squad for the rural areas.

The National Smallpox Eradication Programme was introduced in Vadodara district simultaneously with the other districts of Gujarat in the year 1962. By boosting up the vaccination coverage the achievement in the programme has remained encouraging. The district has maintained a smallpox free status right from February 1972.

So far as the National Smallpox Eradication Programme is concerned, the entire programme in the district is executed by three different administrative units, viz., (1) The District Health Officer, District Panchayat, Vadodara, (2) The Assistant Professor and Medical Officer of Rural Health Training Centre, Padra, (3) The Medical Officer of Health, Vadodara Municipal Corporation, Vadodara.

The eradication has been intensified systematically. From 1970, the containment measures to control smallpox infection are being taken promptly and vigorously, so that no case remains undetected. The State Public Health touring staff, other than the staff actually engaged in the programme, also provide weekly information on smallpox. The Government and semi-Government institutions are also involved in the surveillance indirectly and they report of any doubtful case to the District Health Officer. These measures of surveillance aspect taken promptly have proved very successful in taking immediate preventive measures and abating the possibility of the spread of infection to the other areas.

The following statement shows the attacks and deaths and the primary vaccinations and revaccinations in the district between 1968 and 1972.

STATEMENT XVI-2

Smallpox Vaccination

Year 1	Smallpox		Primary Vaccination 4	Revaccination 5
	Attack 2	Death 3		
1968	17	4	65,217	69,583
1969	27	8	71,049	3,19,598
1970	53	7	82,289	2,44,232
1971	76	14	78,921	2,43,916
1972	1	0	90,520	2,12,518

Source : Director of Health Services, Government of Gujarat, Ahmadabad.

As stated earlier no case was reported after February 1972.

Tuberculosis

Tuberculosis is another major public health hazard. The State Government has, therefore, given a high place of priority for the control of this fell disease. The main emphasis is laid on B. C. G. vaccination which if genuinely and widely carried out, is expected to reduce the incidence of tuberculosis to a considerable extent. T. B. control and B. C. G. vaccination is functioning under a separate bureau in the Directorate of Public Health. A sanatorium for tuberculosis patients at the village Gotri near Vadodara is well-known.

The following statement shows the number of B. C. G. vaccinations given in the district during the period between 1968 and 1972.

Year 1	No. of Vaccinations 2
1968	75,702
1969	78,163
1970	52,909
1971	44,718
1972	33,588

Source : Director of Health Services, Government of Gujarat, Ahmadabad.

Vital Statistics: No records are available on the birth and death rates prior to the last quarter of the last century. Returns of births and deaths were introduced in the year 1879. Till 1901, the work of registering births and deaths was done by the headman in villages and by the police in the towns. They sent a monthly return from these registers to the taluka *Vahivatdars*. The latter forwarded tabulated returns for all the villages and towns to the Sanitary Commissioner, in whose office, the statistics for the whole State were compiled. The duty of reporting births or deaths was, under this arrangement, imposed upon the village watchman and not on the head of the family concerned. As a result, the work was always unsatisfactory. New rules were framed in the year 1901 under which in municipal towns, this duty was assigned to the municipality, and elsewhere on the village headman. The *Vahivatdars*, the Naeb Subas and the Subas were required, when touring their districts, to inspect the registers and to see that they were properly kept. In the city of Vadodara and some of the larger municipal towns the head of the family was bound, by law to send information about births and deaths in his family to the office of the Municipal Inspector of the ward, within a fortnight. Failure to do so rendered him liable to a fine. This arrangement continues till today.

STATEMENT XVI-3

Birth and Death Rates

Year 1				Ratio of births per mille of Population 2	Ratio of deaths per mille of Population 3
1895-96	..	..	..	17.3	18.5
1901-02	..	..	..	21.5	29.6
1905-06	..	..	..	21.9	23.7
1910-11	..	..	..	26.4	24.9
1915-16	..	..	..	31.4	23.4
1921-22	..	..	..	25.2	17.8
1931-32	..	..	..	25.6	19.6
1942-43	..	..	..	35.8	25.0

Source :

- (1) DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), p. 378.
- (2) *Administration Reports, Baroda State*, 1932-33 and 1944-45.

The above statement shows that the work of registering births had improved gradually though it was not perfect. For example, there was a consistent tale of high death rate and low birth rate between 1895 and 1905. At this rate the population of the State ought to have been less from census to census in every decade, during that period. But the census results showed that it had not been so. After the year 1910-11, the death rate was always reported low than the birth rate.

After Independence, and particularly after the introduction of the Five Year Plans, the birth rate has on the whole declined. In 1951, the birth rate was 31.51 per thousand. In 1957, it rose to 36.4 per thousand but came down to 31.6 in 1960. It slightly rose to 32.25 in 1967. In 1972, it declined to 26.0 thanks to the Family Planning Campaign.

As regards the death rate, it was 12.49 in 1951 and 15.6 in 1957. It came down to 12.7 in 1960 and to 10.8 in 1967. In 1972, it further declined to 8.1 due to extension of medical facilities in the district, which controlled death rates and infant mortality.

The following statement shows details about birth rate, death rate and infant mortality from 1968 to 1972.

STATEMENT XVI-4

Vital Statistics

Year 1	Live Births 2	Deaths 3	Infant Deaths 4	Livebirth per thousand 5	Death rate per thousand 6	Natural increase in popu- lation 7	Infant Death rate per thousand live births 8
1968 ..	52,403	15,724	1,995	29.8	8.9	20.9	38
1969 ..	51,313	17,734	2,321	28.7	9.9	18.8	45
1970 ..	51,816	16,942	2,044	28.4	9.3	19.1	39
1971 ..	53,337	17,262	1,988	28.8	9.3	19.5	37
1972 ..	52,962	16,574	1,785	26.0	8.1	17.9	34

Source : Director of Health Services, Government of Gujarat, Ahmadabad.

Public Hospitals

After Independence and particularly after the introduction of the Five Year Plans, the work of providing medical relief has been greatly accelerated. The medical institutions are now equipped with modern medical equipment and are manned with qualified physicians and surgeons. At present there are seven public hospitals, 79 public dispensaries and 18 primary health centres with attached family planning centres in the district. There is a training college for nurses at Vadodara which imparts courses for nursing with practical training at the Sayaji General Hospital. A sanatorium for tuberculosis patients at the village Gotri near Vadodara is well-known. Every year a large number of patients take advantage of the modern treatment available there. The sanatorium has provision of about 160 beds. A hospital for the patients suffering from contagious diseases and leprosy is also functioning at Vadodara. The list of the public hospitals is given below.

1. The Mental Hospital, Vadodara
2. The Jamanabai Hospital, Vadodara
3. Shree Sayaji General Hospital, Vadodara
4. The Ansuya Leprosy Hospital, Vadodara
5. The Referral Hospital, Chhota Udepur
6. The Referral Hospital, Dabhoi
7. The Rural Health Training Centre, Padra.

The Mental Hospital, Vadodara The Mental Hospital was established during the Gaekwad State regime in the year 1898. In the initial stages there were 50 beds in its indoor department which have increased to 155 beds at present. As its name suggests, the hospital treats only mentally sick patients. The average number of patients treated at the hospital come to about 250 every year.

The Jamanabai Hospital and Maternity Home, Vadodara—The Jamanabai Hospital and Maternity Home was started in 1882 A. D., during the reign of Sayajirao Gaekwad III. It is one of the oldest hospitals in the district. The Maternity Home has 60 beds. There are 20 beds in the family

planning ward. The following statement shows the indoor and outdoor patients treated at the hospital during the last five years.

Year 1				Indoor patients 2	Outdoor patients 3
1968	..	..	..	5,114	66,918
1969	..	..	..	4,233	64,915
1970	..	..	..	5,420	85,341
1971	..	..	..	8,800	53,778
1972	..	..	..	6,695	89,440

The hospital runs an auxiliary nurse midwife training course with a strength of 32 student trainees.

Shree Sayaji General Hospital, Vadodara—Shree Sayaji General Hospital named after the former ruler of the ex-Baroda State, was started with a few beds in July 1855. A new building was built at the present site in the year 1886. Additions were made to the hospital later in 1886, 1899 and 1914.

In 1963, the number of beds increased to 567 and further to 700 in 1964. At present, the strength of the beds is 924. A new surgical block with four storeys was constructed between 1961-68 at a cost of about a crore of rupees. This new surgical department has 16 wards, 32 special rooms, 11 operation theatres, X-ray department, pharmacy department and central sterile supply department. It has capacity to accommodate about 500 patients. All general, surgical, orthopaedic, ophthalmic, plastic surgery, cardio thoracic surgery cases are accommodated in this block.

This hospital renders extensive medical services to the people of the district as it is the biggest hospital in the Vadodara district. It provides facilities for the treatment of all types of diseases. The hospital also imparts training to the under graduates and post graduates of the allied Medical College, which was started in the campus of this hospital in the year 1969.

The following statement shows the number of indoor and outdoor patients treated at the hospital during the last five years.

Year 1				Indoor patients 2	Outdoor patients 3
1969	..	..	..	29,128	1,26,684
1970	..	..	..	31,611	1,76,596
1971	..	..	..	33,289	1,84,002
1972	..	..	..	32,294	1,90,748
1973	..	..	..	35,178	2,13,004

The Ansuya Leprosy Hospital, Vadodara—The Ansuya Leprosy Hospital was established during the Gaekwad State regime at its original site on the bank of the river Narmada near village Ambali in the Sinor taluka. As it was situated near the temple of Ansuya Mata, it was named as Ansuya Leprosy Hospital. During the heavy flood of 1968, its building was destroyed and the hospital was thereafter shifted in the city of Vadodara. At present, the hospital has a capacity to accommodate 75 patients in its indoor department. It treats leprosy by plastic surgery. As the leprosy patients are normal in other respects, the indoor patients are given some work, mostly of cultivation, ginning of cotton, spinning Ambar Charkha, weaving of Khadi clothes, etc. The hospital also maintains a small library and a recreation hall for the patients. On an average, it treats 70 patients in indoor department, and about 180 in its outdoor department every year.

The Referral Hospital, Chhota Udepur—It was established in the year 1909, by the former Chhota Udepur State, as a "State Hospital" and is known as Referral Hospital from the year 1958. In the initial stages there were only 30 beds which have now increased to 100. The hospital had one auxiliary nurse-midwife training centre which functioned from 1969 to 1973. There is a maternity home, and a T. B. ward with X-ray unit attached to this hospital. All types of major and minor diseases are treated in this hospital. To cater to the needs of the villages in the interior, it maintains an ambulance van. The following statement shows the number of indoor and outdoor patients treated at the hospital during the last five years.

Year				Indoor patients	Outdoor patients
1				2	3
1969	..	..	..	11,072	50,669
1970	..	..	..	10,170	55,845
1971	..	..	..	13,858	69,676
1972	..	..	..	15,457	71,834
1973	..	..	..	28,732	70,898

The Referral Hospital, Dabhoi—The Referral Hospital was established at Dabhoi in the year 1919. It was originally started as a dispensary and was later on expanded into hospital. The hospital at present has 12 beds. It has separate departments for X-ray, T. B., leprosy, family planning and maternity. The hospital treats about 2500 indoor patients and 40,000 outdoor patients on an average every year.

The Rural Health Training Centre, Padra—A Government dispensary was started at Padra by the Vadodara State in the year 1889. Thereafter, a primary health centre was opened here in 1956, along with a Rural Health Training Centre. This centre provides compulsory training to medical graduates, nurses and health workers and treats patients.

Shree Padmavatidevi Sanatorium, Vadodara—Tuberculosis was a wide-spread disease in the past. The need for indoor accommodation for the T. B. patients was, therefore, realised. As a result, the T. B. Association of Vadodara State, a semi-Government body, was formed with the Gaekwad ruler as its patron. The Association constructed a T. B. Sanatorium in 1943 at a cost of Rs. 3.24 lakhs which was later named as Shree Padmavatidevi Sanatorium.

The Vadodara State subsequently took over charge of the sanatorium from the T. B. Association. On merger of the Vadodara State, it was taken over by the Government. It has a fully equipped operation theatre, distillery plant, X-ray equipment, etc. The following statement shows the number of indoor and outdoor patients treated at the hospital during the last five years.

Year				Indoor patients	Outdoor patients
1				2	3
1969	..	..	..	1,549	4,047
1970	..	..	..	1,504	3,105
1971	..	..	..	1,625	2,912
1972	..	..	..	2,008	3,216
1973	..	..	..	2,222	3,397

The Vadodara Jilla Netra-Rahat Ane Arogya Mandal, Vadodara—Inspired by the response received during the eye camp organised at the instance of Shri Ravishankar Maharaj in the year 1950 at village Itola (Vadodara taluka). Shri Mangaldas Laxmidas Shah gave donation of Rs. 25,000 to open an eye hospital in the district. The Vadodara Jilla Netra-Rahat Ane Arogya Mandal thus came into existence. The hospital was started at Vadodara in a small rented building with five beds in the year 1961. A new building was constructed in 1968 at a cost of Rs. 1.5 lakhs. The number of beds at present is 30. The hospital is managed by an executive committee under the chairmanship of Shri Ravishankar Maharaj.¹

1. *Vikas Ank*, Vadodara Jilla Congress Samiti, (1969), p. 110.

Medical Facilities

According to the 1971 Census, the total number of beds in the medical institutions of the towns of the district numbered 1786 distributed as follows :

Sl. No. 1	Name of Town 2	Number of beds in medical institutions 3	Number of beds per 1,000 population 4
1	Bahadarpur ..	15	2.52
2	Bodeli ..	17	2.73
3	Chhota Udepur ..	44	3.07
4	Dabhoi ..	81	2.14
5	Fertilizernagar ..	20	3.75
6	Jawaharnagar (Gujarat Ro nery) ..	20	3.50
7	Karjan ..	34	2.84
8	Padra ..	12	0.50
9	Sankheda ..	10	1.25
10	Sinor ..	3	0.36
11	Vadodara ..	1,519	3.25
12	Vaghodia ..	11	1.46
	Total ..	1,786	2.96

Source : *District Census Handbook 1971, Part X-A&B, p. 12.*

As the above statement indicates the highest number of beds (1519) was in Vadodara followed by Dabhoi (81), Chhota Udepur (44) and Karjan (34). The rest of the towns had beds varying from a minimum of 3 in Sinor to a maximum of 20 in Fertilizernagar and Jawaharnagar. Sinor, Sankheda and Padra stood lowest in the ladder. The district average for all the towns shows that there were 2.96 beds per 1000 population. Chhota Udepur, Fertilizernagar, Jawaharnagar and Vadodara were above the district average whereas the rest of the towns were below the district average.

The following statement shows the number of medical institutions per 100 sq. km. in the district, according to the 1971 Census :

Sl. No. 1	Name of Taluka 2	Total area (in sq. km.) 3	No. of Medical institutions of any kind per 100 sq. km. 4
1	Vadodara ..	670	9.3
2	Karjan ..	602	5.0
3	Padra ..	535	6.9
4	Savli ..	792	3.8
5	Vaghodia ..	564	3.9
6	Dabhoi ..	633	7.1
7	Sankheda ..	723	3.0
8	Jabugam ..	799	3.1
9	Chhota Udepur ..	1,379	1.5
10	Nasvadi ..	535	2.6
11	Tilakwada ..	245	4.9
12	Sinor ..	292	3.8

Source : *District Census Handbook 1971, Part X-A, B. p. 17.*

The above statement shows that the number of medical institutions is the highest in Vadodara taluka followed by Dabhoi, Padra, Karjan and Tilakwada. The lowest proportion is noticed in Chhota Udepur taluka (1.5).

AYURVED

The Ayurved system of medicines flourished in the past. However, its popularity and importance gradually declined with the advent of the British rule due to several reasons, such as encouragement to allopathy by the British, the absence of scientific research in the Ayurved, and want of *Vaids* well-versed in this science.

The Vadodara State encouraged Ayurved. The Gaekwads maintained a committee of *Vaids* and paid them from the State funds. However, these *Vaids* also practised privately either gratis or for a remuneration.¹ Their condition was in general, quite satisfactory.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), p. 360.

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instituti

However, it was only after Independence that the Government realised the importance of the Ayurved and directed proper attention to its research and development. A research centre for Ayurvedic diseases has been opened in every part of the country.

At present, there is one Government Ayurvedic hospital at Vadodra. 7 Government Ayurvedic Dispensaries are (1) Goraj in Vaghodra, (2) Katal in Dabhoi taluka, (3) Nadi in Dabhoi taluka, (4) Sankh in Jabuam taluka, (5) Vankar in Sankh taluka, (6) Kashipura in Sankh taluka and (7) Kosundra in Sankh taluka.

NUMBER OF DOCTORS

According to the 1971 Census, there were 10 physicians and 25 dentists in the district.

The *Ayurveda Shuddha Mahavidyalaya*, Vadodra—The *Ayurveda Shuddha Mahavidyalaya* with attached hospital was established in the year 1963. It is an Ayurvedic college for women and is the only one of its type in the whole of India. The college is affiliated to the Gujarat Ayurved University, Jamnagar and is recognised by the Gujarat Government. It conducts a B. S. A. M. degree course of the Gujarat Ayurved University. The number of students in this institution was 125 in 1974. The number of beds in the hospital during this year was 40. It runs a dispensary, a laboratory and a pharmacy. Till 1973, 58 students of this institution obtained B. S. A. M. degree of the Gujarat Ayurvedic University.

The following statement shows the number of indoor and outdoor patients treated at the hospital during the last five years.

Year 1	Indoor patients 2	Outdoor patients 3
1969-70	342	54,416
1970-71	370	62,911
1971-72	363	53,534
1972-73	379	57,921
1973-74	379	51,208

1. Director of Census, Vadodra District, 1971 B-V, Part-A (Urban) Provisional figures.

The hospital arranges a *shibir* for diagnosing various diseases every year in the month of April when about 500 patients are treated free of charge.

Sheth Ujamshi Pitambardas Ayurvedic Research Unit (M. S. University), Vadodra—Sheth Ujamshi Pitambardas Ayurvedic Research Unit was started in the Medical College of the M. S. University in the year 1953. The unit conducts clinical research and has a library, a museum of Indian medicinal herbs and minerals, a clinical laboratory, a *Ras-shala* and an out-patient department. There are 20 beds in the Ayurvedic Clinical Research Unit where about 60 new patients are treated every month.

Fifty groups of available medicinal herbs, each group consisting of 10 drugs according to the pharmacological classification of Charak are arranged and maintained in the museum. Specimens of minerals and other useful medicines have also been kept. Besides, a section of Ayurvedic pharmacological medicines is also maintained.

The unit started a general Ayurvedic out-patients department in the year 1973. The diseases treated here include *Hridrog* (heart disease), *Shirahshool* (chronic headache) and *Sandhigat rog* (rheumatism).

FAMILY PLANNING PROGRAMME

It is estimated that population rises by 2.6 per cent per year in this district. With a view to arresting this speedy growth, family planning programme is being vigorously pursued in the district. It now forms a very important part of the district health programme. It is implemented through the Medical Officers of the primary health centres, hospitals and dispensaries and family planning centres. These centres distribute contraceptives among the needy married couples. The District Health Officer with the help of District Family Planning Officer, organises camps for popularisation of contraceptive devices. The rural family planning centres are staffed by Medical Officer, Class III, Block Extension Educators, two Field Workers, 4 Auxiliary Nurse Midwives, Auxiliary Field Workers and 4 Social Workers, and attendants who move from house to house for free distribution of contraceptives as also to explain the benefits of planned parenthood and to prepare married males and females for undergoing vasectomy and tubectomy operations.

The District Family Planning Officer is responsible for the implementation of the family planning programme in the district. He is assisted by a male and female Assistant Surgeon, Health Education and Information Officer, Administration Officer, two District Extension Educators and other staff.

The following statement gives details about progress achieved in the programme of family planning.

However, it was only after Independence that the Government realised the importance of the Ayurved and devoted proper attention to its revival by research and development. As a result, several Ayurvedic dispensaries were opened in every part of the country.

At present, there is one Government Ayurvedic hospital at Vadodara and 7 Government Ayurvedic dispensaries, at (1) Goraj in Vaghodia taluka, (2) Karali in Dabhoi taluka, (3) Nada in Dabhoi taluka, (4) Sandhala in Jabugam taluka, (5) Vankaner in Savli taluka, (6) Kashipura in vadodara taluka and (7) Kosindra in Sankheda taluka.

NUMBER OF DOCTORS

According to the 1971 Census, there were 639 physicians and surgeons and 25 dental surgeons in the urban areas of the district. Figures for the rural areas are not available.

The Aryakanya Shuddha Ayurved Mahavidyalaya, Vadodara—The Aryakanya Shuddha Ayurved Mahavidyalaya with attached hospital was established in the year 1963. It is an Ayurvedic college for women and is the only one of its type in the whole of India. The college is affiliated to the Gujarat Ayurved University, Jamnagar and is recognised by the Gujarat Government. It conducts a B. S. A. M. degree course of the Gujarat Ayurved University. The number of students in this institution was 125 in 1974. The number of beds in the hospital during this year was 40. It runs a dispensary, a laboratory and a pharmacy. Till 1973, 58 students of this institution obtained B. S. A. M. degree of the Gujarat Ayurvedic University.

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NUMBER OF DOCTORS

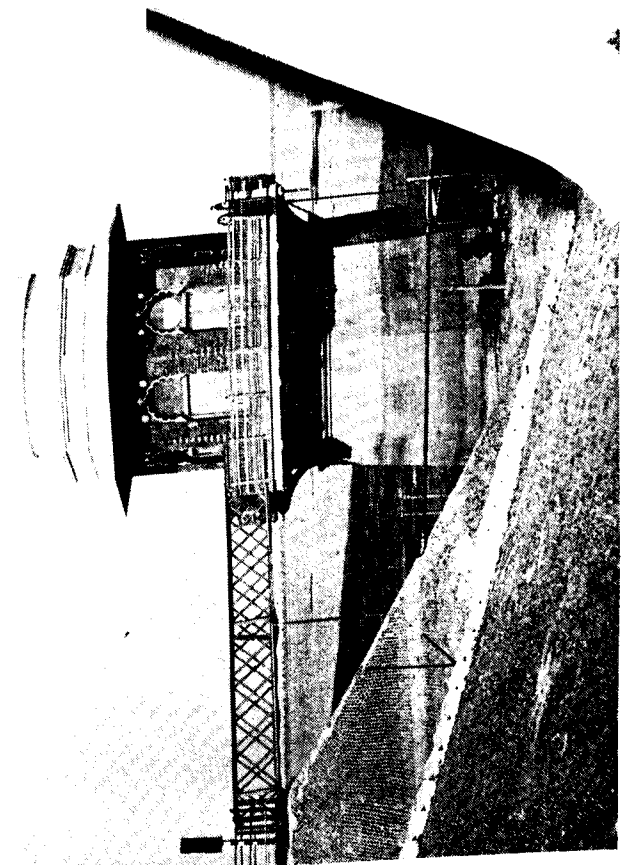
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1. Director of Census, Vadodara District, 1971 B-V, Part A (Urban)
Provisional figures.



Ajwa Sarovar

STATEMENT XVI-5
Progress in Family Planning

Sl. No.	Year	L. U. C. D.	Vasectomy	Tubectomy	Total
1	2	3	4	5	6
1	1968-69	..	..	883	7,690
2	1969-70	..	..	672	5,444
3	1970-71	..	..	622	7,158
4	1971-72	..	..	949	4,420
5	1972-73	..	..	1,105	4,656
					28,590
					5,971
					34,561
					3,178
					8,196

Source :

Director of Health Services, Government of Gujarat, Ahmadabad.

Maternal and Child Health—As public health sector was not properly organised prior to Independence, provision for the health centres did not then exist. As a result, the health of women was many a time impaired during their pregnancy and delivery. Trained nurses and midwives were not available and the work was performed by untrained *ayahs* and indigenous *dais* with the result that death rate of both pregnant women and infants was high. After Independence, the Government made necessary provision for training nurses and established a number of maternity and child welfare centres. In 1971, the number of such centres was 49 in the district.

Health Education

The Government of Gujarat has established a Bureau of Health Education to organise health education programme in a systematic and intensive manner throughout the State. The routine health education is carried out by the departmental staff during tours in the district with a view to educating villagers in matters of health. Whenever fairs and festivals are held, the departmental staff carries out health education activities by showing films on subjects of health and hygiene.

The family planning workers and departmental staff are trained to give health education. They are allotted specific areas for their field work. The Family Planning Bureau arranges film-shows and other programmes in the district to promote health education. Special charts on the problems of health and family planning are locally prepared and displayed in the primary health centres.

The city of Vadodara has a good Health Museum in the midst of the city. The museum was established by the Gaekwad ruler Sayajirao-III at village Sarkarwada in 1932. It was shifted to Vadodara city in 1953. The museum exhibits 118 specimens on various subjects like biology, sanitation and hygiene, food and nutrition, control of T. B. and various diseases, etc. Other activities of the museum include arranging lectures, film shows, essay contests, etc.

PRIMARY HEALTH CENTRES

The primary health centres and sub-centres provide basic health services as well as maternity and child health services in an integrated manner and also perform preventive and curative functions. They carry out multipurpose functions such as environmental sanitation, control of communicable diseases, control of trachoma, leprosy, etc.

There are 18 primary health centres situated in the following villages.

Sl. No.	Taluka	Village
1	2	3
1	Vadodara	.. (1) Chhani (2) Por
2	Dabhoi	.. (1) Sathod (2) Dabhoi.
3	Sankheda	.. Sankheda.
4	Karjan	.. (1) Karjan (2) Choranda
5	Vaghodia	.. Vaghodia
6	Jabugam	.. Jabugam
7	Chhota Udepur	.. (1) Tejgadh (2) Kavant (3) Zoz (4) Chhota Udepur
8	Tilakwada	.. Tilakwada
9	Savli	.. Savli
10	Sinor	.. (1) Sadhli (2) Gadh-Boriad
11	Padra	.. Padra

Besides, there are 48 primary health units in the district.

ORGANISATIONAL SET UP OF THE PUBLIC HEALTH DEPARTMENT

The Director of Health Services, Gujarat State, Ahmadabad, is the head of all medical and health institutions in the State and is responsible for the efficient working of such institutions in the State. The Directorate is divided into two sections; (i) medical and (ii) health. On health side, there is a Deputy Director of Public Health (Inspection) at the headquarters to look after the activities of Public Health Department except Family Planning and Malaria Programmes. He is assisted by the functional Assistant Director of Public Health incharge of different health programmes. These programmes are implemented by the Public Health Department through the District Health Officers who are incharge of all public health activities in the district. There is also a Joint Director of Public Health Services at the headquarters who is in charge of all activities connected with the Family

Planning and Maternity and Child Health Services in the State. At the district level, the District Family Planning Medical Officers implement this programme. There is a full-time Joint Director (Statistics) at the headquarters who is in charge of statistics relating to Health Section. There is also a full time Deputy Director of Public Health (Malaria and Filariasis) who is in charge of National Malaria Eradication Programme and National Filariasis Control Programme. He functions through the Regional Malaria Officers and Unit Officers, National Malaria Eradication Programme at regional and district levels. The National Filariasis Control Programme is implemented through the unit officers in charge of the programme at district level. All primary health centres and dispensaries etc., are under the control of the Chief Medical Officer of Health, Vadodara District Panchayat.

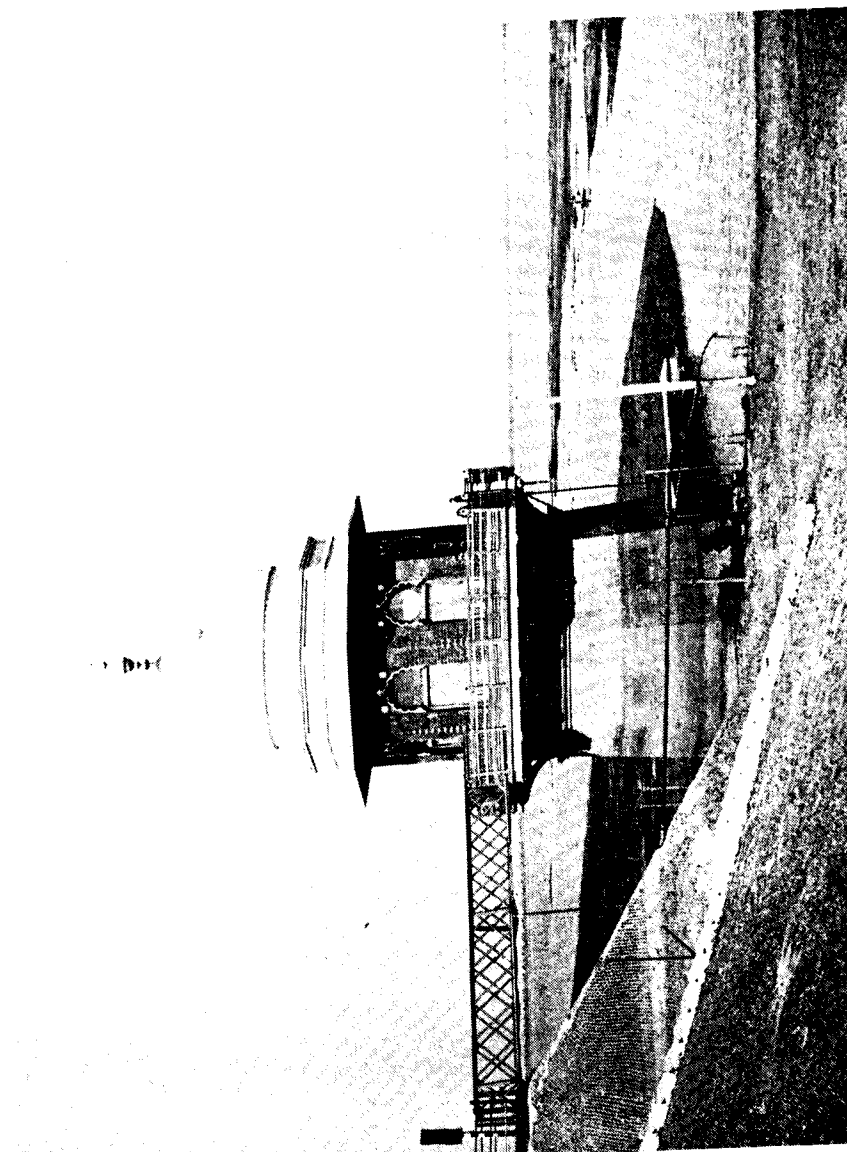
RURAL WATER SUPPLY

Among a number of public health activities taken up after Independence provision for drinking water, the most essential human need, has received the topmost priority. While all the towns, except Vaghodia, have protected water supply, ordinary surface wells are the main source of water supply in the villages.

According to the 1971 Census, 347 villages in the district were served with tap water. Their talukawise distribution is given below :

Sl. No.	Taluka	Number of Villages				
1	2	3				
1	Vadodara ..	..	..	..	..	55
2	Karjan ..	..	..	..	..	68
3	Padra ..	..	..	..	..	52
4	Savli ..	..	..	..	..	16
5	Vaghodia ..	..	..	..	..	17
6	Dabhoi ..	..	..	..	..	58
7	Sankheda ..	..	..	..	..	26
8	Jabugam ..	..	..	..	..	11
9	Chhota Udepur ..	..	..	..	..	1
10	Nasvadi ..	..	..	..	..	1
11	Tilakwada ..	..	..	..	..	6
12	Sinor ..	..	..	..	..	36
Total ..		..	..	..	..	347

Source : District Census Handbook 1971, Vadodara, p. 180-181.



Ajwa Sarovar

URBAN WATER SUPPLY

As stated above, all towns except Vaghodia have protected water supply. The first water works were established in Vadodara city in the year 1892, followed by Chhota Udepur in 1909 and Sankheda in 1922. Most of the other towns got water works after Independence. The important water works in this district are described below :

The Vadodara Water Works

Efforts had been made by Sir T. Madhavrao to discover a source whereby the city of Vadodara could be provided with water supply. It was at first suggested that supplies might be drawn from the river Narmada. In 1876, one Mr. Crosthwait was engaged to study the subject. He advised against the Narmada project stating that it would be both costly and difficult. Alternatively, the river Mahi was inspected as a source of supply but this scheme too was found impossible because its adoption would involve the lifting of water by pumps and its subsequent transmission to a great distance, a very costly process. The Orsang river and the tanks at Savli were also taken into consideration. In the end, Mr. Crosthwait reverted to the plan of constructing a series of large wells in the vicinity of the city, sufficiently distant to preclude all possibility of contamination of the water. A large well was sunk experimentally on the Race Course side, but the idea of a water supply from well was finally abandoned. Finally the scheme of Sayaji Sarovar prepared by an Indian engineer, the late Mr. Jagannath Sadashivji, by the adoption of which the city now possesses an excellent water supply was selected. The work which commenced in 1885, was completed in 1890. The Sayaji Sarovar about 20 km., from the city is formed by damming the Surya river and the Vaghali Nala. The total cost of the project was Rs. 34,00,000.¹

In 1940, special tube-wells were commissioned at a cost of Rs. 1.70 lakhs to meet the additional requirements of water. In 1969, the Mahi intake well also started supplying drinking water to the city population. These three major sources of water supply more than meet the local requirements at present.

Thus the Municipal Corporation of Vadodara can take pride of having surplus water even during years of acute shortage. The total number of domestic connections is 40,000 at present.

There is a scheme of constructing two french type infiltration wells in the bed of the river Mahi, about 20 km., north of the city. The estimated

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), p. 335.

cost of the project is Rs. 6 crores. The scheme is divided in two phases. The completion of the first phase by 1979 would provide 12.5 million gallons of water for the city. The second phase would be completed by 1990. The scheme is known as "Panam River Water Supply Scheme".

In order to provide water facilities to industries and the increasing population of the city, a scheme of laying pipelines and supplying water from the river Narmada is proposed at an estimated cost of Rs. 7.5 crores. A site near Chandod has been suggested for the location of tube wells in the river bed. This scheme can satisfy the increased requirements of 6 crore gallons of water by the year 1991.

The Chhota Udepur Water Works

The Chhota Udepur water works were constructed in the year 1909 during the princely State regime. The number of domestic connections at present is 1,239 through which the town population is supplied protected water. The total capacity of water supply is 3.5 lakh gallons.

The Sankheda Water Works

The Sankheda water works were constructed in the year 1922. The number of domestic connections at present is 688. The water works have capacity to supply 40,000 gallons of protected water per day.

The Bahadarpur Water Works

The Bahadarpur water works were started in the year 1957-58 at a cost of Rs. 35 lakhs. The source of water supply is the river Orsang from where 30 gallons of water per capita, per day is supplied to the inhabitants of the town. The number of domestic connections at present is 535.

The Padra Water Works

The Padra water works were started in the year 1962 at a cost of Rs. 8 lakhs. The number of domestic connections at present is 1992. The total capacity of the water works is 10 lakh gallons of water per day.

The Karjan Water Works

The water works at Karjan were started in the year 1952, at a cost of Rs. 3.52 lakhs. The number of domestic connections at present is 1200. The total capacity of the water works is 3 lakh gallons of protected water per day. The daily use of water supply is 25 gallons of water per day per capita.

The Bodeli Water Works

The Bodeli water works were commissioned in the year 1967 at a cost of Rs. 2 lakhs. The number of domestic connections at present is 439. The total capacity of the water works is 1.5 lakh gallons of protected water per day.

DRAINAGE

In a large number of towns in this district drainage facilities are inadequate. Only four towns namely (1) Vadodara (2) Fertilizer Nagar, (3) Jawahar Nagar, (Gujarat Refinery) and (4) Karjan have sewers. Three towns, viz., Chhota Udepur, Sankheda and Dabhoi have open surface drainage. The under-ground drainage system was introduced in Vadodara city in 1892. The area covered by the underground drainage facilities is 80 per cent of the total area of the city. The total cost of drainage system is estimated at about Rs. 2.50 crores.

CHAPTER XVII

OTHER SOCIAL SERVICES

INTRODUCTORY

The subjects dealt with in this chapter include labour welfare, prohibition, welfare of the backward classes and public and charitable trusts and endowments. These welfare services form a new phase of public activities which have assumed greater importance since Independence.

After Independence, the Government has undertaken various measures for the amelioration of conditions of the backward strata of society which were hitherto neglected. A number of facilities and concessions have been provided to these classes so as to bring them on par with other classes of society, thus removing the inequalities in their status as citizens of India. Similarly, for the welfare of the working classes a number of labour welfare measures have been undertaken. These have gone far enough in removing the exploiting conditions in which they worked in the past. As a measure of social reform, especially to help improve the living conditions of the poorer strata of society, prohibition of liquor and other intoxicating drugs has been introduced and strictly enforced. These welfare measures are discussed in the following paragraphs.

The status and conditions of industrial workers have now changed much as compared to the past. A worker is now only an ordinary earner producing a small part of the whole product. He is no longer a self-dependent and self-employed artisan of the past, who worked in his own house and manufactured a complete product. The industrialisation and urbanisation have also created problems of sanitation, over-crowding, and unsafe conditions of working life which involve risk to life and limb.

Before Independence, the major part of the district formed part of the Vadodara State had introduced during the thirties several measures for the welfare of workers. Some of the important labour laws in force were the Factories Act, the Trade Unions Act, the Payment of Wages Act, the Trade Disputes Act, the Workmen's Compensation Act, the Maternity Benefit Act, etc. The State had also undertaken various welfare measures for the uplift of labourers. Workmen's Co-operative Credit and Thrift Societies and Co-operative Housing Societies were started during the Vadodara State regime. Medical facilities were also provided free of charge in all the factories. Most of the factories had their own dispensaries. All the large industrial concerns in the State had opened grain-shops for their employees at which

grain was supplied at a fair price. Games and library facilities were also provided.

After the integration of the Vadodara State into the Bombay State in 1949, all the labour laws obtaining in the Bombay State were extended to the district.

LABOUR LEGISLATION

The labour laws at present in force in the district include the following :

- (1) The Indian Boilers Act, 1923,
- (2) The Workmen's Compensation Act, 1923,
- (3) The Cotton Ginning and Pressing Factories Act, 1925,
- (4) The Trade Unions Act, 1926,
- (5) The Payment of Wages Act, 1936,
- (6) The Employment of Children Act, 1938,
- (7) The Bombay Industrial Relations Act, 1946,
- (8) The Industrial Employment (Standing Orders) Act, 1946,
- (9) The Industrial Disputes Act, 1947,
- (10) The Bombay Shops and Establishments Act, 1948,
- (11) The Employees State Insurance Act, 1948,
- (12) The Factories Act, 1948,
- (13) The Minimum Wages Act, 1948,
- (14) The Employees Provident Funds Act, 1952,
- (15) The Working Journalists (Conditions of Services and Miscellaneous Provisions) Act, 1955,
- (16) The Working Journalists (Fixation of Rates of Wages) Act, 1958,
- (17) The Employment Exchanges (Compulsory Notification of vacancies) Act, 1959,

CHAPTER XVII—OTHER SOCIAL SERVICES

- (18) The Gujarat Labour Welfare Fund Act, 1961,
- (19) The Maternity Benefit Act, 1961,
- (20) The Motor Transport Workers Act, 1961,
- (21) The Apprentices Act, 1961,
- (22) The Gujarat Smoke Nuisance Act, 1963,
- (23) The Payment of Bonus Act, 1965,
- (24) The Beedi and Cigar Workers (Conditions of Employment) Act, 1966,
- (25) The Contract Labour (Regulation and Abolition) Act, 1970, and
- (26) The Payment of Gratuity Act, 1972.

Of these, the more important labour laws which have introduced far reaching changes in the welfare of working conditions of labourers are :

(1) *The Maternity Benefit Act*—It regulates the employment of women before and after child birth and provides maternity benefits on a prescribed basis. The number of female workers benefitted in the district under this Act was 31 between the period 1969 to 1973.

(2) *The Shops and Establishments Act*—It limits the hours of work in shops and commercial establishments and provides for a paid weekly holiday. The Act was first applied to the Vadodara Municipal Corporation area in the year 1949. It was applied to the Dabhoi Municipality area in 1952, to Padra Nagar Panchayat area in 1960 and the Karjan Gram Panchayat area in 1962.

(3) *The Factories Act*—It provides for the minimum requirements regarding health, safety and general welfare of workers and fixes their working hours.

(4) *The Workmen's Compensation Act*—It provides for compensation to be paid to a worker who meets with an accident while on duty, and

(5) *The Provident Funds Act*—It provides for the contributory provident fund for the future economic stability of the worker etc. The Provident Funds Scheme covered 410 establishments in this district employing 35,668 persons of whom 27,997 contributed to the Provident fund in the year 1973.

LABOUR WELFARE

The labour welfare activities were started in the year 1937 when the popular Congress Ministry was formed in the former Bombay State. The Labour Welfare Centres were established in the labour localities with a view to provide healthy recreation to the workers in their leisure hours. At that time only 6 towns of the present Gujarat State *i. e.*, Ahmadabad, Vadodara, Surat, Bharuch, Nadiad and Viramgam were covered by labour welfare activities. These activities were conducted by the State Government.

In the year 1953, the former Government of Bombay, passed the Bombay Labour Welfare Fund Act which was brought into force with effect from 24th June, 1953. The purpose of the Act is to provide for a constitution of a fund for financing activities to promote welfare of labour in the State and for conducting such welfare activities as will raise the standard of the working class.

The Gujarat Labour Welfare Board constituted under the Bombay Welfare Fund Act of 1953 conducts labour welfare activities in the State. Certain amendments were made in this Act after the formation of the Gujarat State and the amended Act was brought into force in the year 1962. The Labour Welfare Board works as trustees of the labour welfare fund which is created to promote the welfare of labourers and their dependants. The main activities of the board include establishment of community and social education centres, including reading rooms and libraries, community centres, holiday homes, excursions, entertainments and other recreation. These activities are mainly conducted through the labour welfare centres established at different places. There are three labour welfare centres in labour areas of the Vadodara City. Moreover, the Board encourages the labour unions to conduct labour welfare activities and gives grant-in-aid upto 75 per cent of the expenditure on approved activities.

PROHIBITION

During the Vadodara State regime, there was no prohibition in the areas comprising this district. The excise revenue was derived from the manufacture and sale of country liquor, issue of licenses to sell foreign liquor, etc. The right to manufacture and sell liquor was formerly sold by auction to contractors. From 1881, to put an end to illicit distillation the liquor was manufactured at a Government still. From 1910, liquor was manufactured at one place by one contractor and licenses for sale were issued to shops by the State. Contract for the manufacture and supply of country liquor and foreign liquor in Vadodara district was given to M/s. Alembic Chemical Works for every 5 years. The contracts regarding sale of intoxicating drugs were given by open auction by fixing the minimum upset price.

The officer looking after the administration of excise was the Excise Superintendent, who was responsible to the Excise Commissioner (Suba).

The following Acts and Rules were in force in the Vadodara State :

1. The Opium Act, Samvat 1958 (Act VII)
2. The Abkari Act, Samvat 1971
3. The Act for the Sale of Excise Opium in Baroda State, Samvat 1978
4. Rules for the Sale of Opium in Baroda State, Samvat 1978

Liquor was consumed mostly by the backward castes, and Scheduled Tribes for some of whom, it was a customary practice to serve liquor to guests during social ceremonies like marriage, etc. The drinking habit was thus confined to a few castes, mostly backward.

Mahatma Gandhiji had advocated prohibition in his 10 point constructive programme. Despite opposition from the vested interests, this programme was vigorously followed during non-co-operation movement of 1930. Gandhiji spearheaded the movement for prohibition and organised picketing of wine and toddy shops. Sardar Vallabhbhai Patel also advised the rulers to introduce prohibition in their States. Thus, Gujarat took a lead for the cause of prohibition.

In the year 1947, after Independence, a phased programme of prohibition was undertaken by the National Government. Under this programme the sale of intoxicant was controlled progressively by a cut of 25 per cent. This policy of gradual prohibition culminated in total prohibition in April, 1950. Thus, total prohibition was introduced in this and other parts of Gujarat from April, 1950. At present, the State of Gujarat is the only State in India which has implemented the policy of total prohibition.

Objectives and Working of the Prohibition Act

The prohibition law is brought into force primarily with a view to eliminating the vice of drinking and rehabilitating the domestic life of the addicts, thereby raising the standard of living of the people. The following Central and State Acts are at present in force in the Gujarat State.

(1) *State Acts*

- (i) The Bombay Prohibition Act, 1949.
- (ii) The Bombay Opium Smoking Act, 1936.
- (iii) The Bombay Drugs (Control) Act, 1959.

(2) *Central Acts*

- (1) The Medicinal and Toilet Preparations (Excise Duties) Act, 1955.
- (2) The Spirituous Preparations (Inter-State Trade and Commerce) Control Act, 1955.
- (3) The Dangerous Drugs Act, 1930.

These Acts prohibit the import, export, transport, purchase, possession, use, consumption and manufacture of intoxicants in the State except under a licence or a permit.

The State Government has also constituted a District Prohibition Committee to advise the administration in the matter of grant of certain licences under the Bombay Prohibition Act, 1949. The District Prohibition Committee also co-ordinates the activities of the department of Panchayats, Prohibition and Police under this law. The work of enforcement of prohibition is entrusted to the police in addition to their normal duties.

To intensify the prohibition propaganda the Rath Pargana area of Chhota Udepur taluka of this district has been selected under the Fourth Five Year Plan regarding Nashabandhi Lok Karya Kshetras. This scheme is being implemented by the Nashabandhi Mandal, Gujarat. One Nashabandhi Niyojak has been appointed by the Nashabandhi Mandal for this work. The Mandal is paid an additional grant of Rs. 150 p. m. for conducting special prohibition drive in the 45 villages of Rath Pargana of Chhota Udepur taluka which is the most notorious area from the prohibition point of view.¹

While the Nashabandhi Mandal carries on prohibition propaganda activities throughout the State, the Vadodara Jilla Pachhat Varga Seva Mandal conducts these activities in the four Adivasi talukas, namely, Chhota Udepur, Naswadi, Sankheda and Jabugam. As these talukas are inhabited by the Adivasis who are addicted to drinking toddy, they need special attention from the prohibition point of view. The Mandal has appointed a Prohibition Organizer for this purpose.

Benefits of Prohibition

The Prohibition Inquiry Report for Bombay State submitted by Shri M. D. Bhansali, I. C. S. in 1952 made a special mention of this district in the following words :

1. *Gujarat, the Torchbearer of Prohibition* (1973), p. 57.

“Illicit liquor is consumed in Baroda City and is locally distilled or smuggled from villages round about in Baroda taluka. Chhota Udepur taluka which was notorious for consumption of liquor and toddy has improved to some extent, but liquor is distilled by the Kolis in rural and forest areas of this taluka. Tapping of palm trees is resorted to by the Adivasis in some parts of Chhota Udepur taluka and the scarcity of food in that area has resulted in increasing such tapping. Madhya Bharat adjoins and smuggling takes place from the border area. In Baroda City improvement is reported in the mill areas and in Fatepur and Golwad localities. The condition of Bhils has improved in rural areas particularly in Sankheda, Naswadi and Jambugaon talukas.”¹

The position has much improved since then and prohibition has been made more effective. The illicit distillation is under check and offences of drunkenness, etc., are on the whole, declining. Most of the addicts have redeemed their old debts. The number of crimes which were committed under the influence of drinks have also appreciably declined.

Prohibition has brought about a healthy change in the domestic, social and economic life of the peasants, labourers and the Backward Classes in particular. The Dhebar Commission for the Scheduled Castes and Scheduled Tribes has taken a special note in its report about the working of prohibition in the tribal areas of Gujarat and has observed that tribals have taken to peaceful life, their purchasing power has increased and their standard of living has improved as a result of prohibition. The Social Welfare Department of the erstwhile Bombay State carried out a survey of the socio-economic conditions of the Backward Classes during the year 1958. It examined more than 100 villages of several districts including the Vadodara district. The survey indicated that there was an overall improvement in social, economic and health conditions of the Backward Classes as a result of prohibition. They were able to save money which was utilised for their better life. The amount of income which was formerly spent on liquor was used for productive purposes. Prohibition has reduced family tensions and brought about better relations at home, greater and proper care of children, and almost complete absence of quarrelsome and ugly atmosphere both in homes and in the neighbourhood.

PROHIBITION OFFENCES

A total of 10,618 prohibition offences were detected during the year 1972-73 of which 4,066 related to drunkenness and 6,183 related to illicit import, export, or possession of liquor. The rest concerned possession of hemp drugs and opium. Prohibition offences recorded in the district between 1965-66 and 1972-73 are given in the following statement.

1. BHANSALI M. D., *Prohibition Inquiry Report in Bombay State*, (1952), pp. 17-18.

STATEMENT XVII-1

Prohibition Offences

Year 1	Illicit import, export, transport, possession and disti- llation of liquor 2	Drunken- ness 3	Misc- ellaneous 4	Opium 5	Hemp drugs 6	Total 7
1965-66	.. 2,306	948	2,851	8	47	6,160
1966-67	.. 2,928	812	2,504	3	63	6,310
1967-68	.. 1,964	1,938	1,261	11	53	5,227
1968-69	.. 2,555	1,815	164	11	66	4,611
1969-70	.. 3,921	2,080	169	13	48	6,231
1970-71	.. 4,343	2,958	516	6	42	7,865
1971-72	.. 5,388	3,529	276	6	44	9,243
1972-73	.. 6,183	4,066	198	5	166	10,618

Source : Director of Prohibition and Excise, Gujarat State, Ahmadabad.

The total number of various kinds of major licences granted in the district during the period between 1965-66 and 1972-73 are given in the following statement.

STATEMENT XVII-2

Licences

Year 1	Licences for the whole sale of the denatured spirit 2	Licences for the retail sale of denatured spirit 3	Licences for the sale of manu- factured drugs by a dealer 4	Opium and Hemp drugs sale Depots 5	Total 6
1965-66	 3	21	515	11	550
1966-67	 5	21	499	11	536
1967-68	 6	21	473	11	511
1968-69	 4	21	323	10	358
1969-70	 5	21	336	9	371
1970-71	 5	21	335	8	369
1971-72	 5	21	311	8	345
1972-73	 5	17	368	5	395

Source : Director of Prohibition and Excise, Gujarat State, Ahmadabad.

Set-up of the Department and Its Functions

The Director of Prohibition and Excise is the head of the Department. He has his office at Ahmadabad. He is assisted by one Deputy Director of Prohibition and Excise (Class II) and one Legal Assistant (Class II). The district is placed in charge of an officer, designated as Superintendent of Prohibition and Excise, Vadodara. He has under him 4 Inspectors and 13 Sub-Inspectors of Prohibition and Excise to assist him in his work. One Inspector each has been posted at (1) M/s. Alcmic Chemical Works Co. Ltd., Vadodara's distillery, (2) M/s. Sarabhai Chemicals Ltd., Vadodara's Bonded Laboratory, (3) Vadodara City North, and (4) Vadodara City South. Out of the 13 Sub-Inspectors of Prohibition and Excise, 10 have been posted at Vadodara City. The Superintendent of Prohibition and Excise is also the Secretary of the Vadodara District Prohibition Committee constituted by Government to advise the administration in the matter of grant of licences under the Bombay Prohibition Act of 1949.

The functions of the Prohibition and Excise Department are confined to grant of licences and permits for excisable articles, inspection of these licences and permits, and to recover excise duties and fees on foreign liquor and other intoxicants and on medical and toilet preparations containing alcohol, opium, hemp, narcotic drugs and other narcotics. Besides these, the Department carries on prohibition propaganda and educates the masses against the evil of drink. The work relating to prohibition propaganda in the Panchayat areas is entrusted to the Panchayats.

The Director of Prohibition and Excise, being the head of the Prohibition and Excise Department is responsible for the overall supervision and administration of the law and for carrying out effectively the policy of prohibition as envisaged by the Bombay Prohibition Act, 1949. However, the Police Department is primarily responsible so far as the enforcement aspect of the prohibition law is concerned as the work of prevention and detection of prohibition offences is entrusted to the Police Department. The Prohibition and Excise Officer is invested with necessary powers of search, seizure and arrest. He thus assists the Police Department in detecting prohibition cases.

BACKWARD CLASSES

The Backward Classes may be grouped into two main classes : The Scheduled Castes and the Scheduled Tribes. There are 13 Scheduled Castes in the district, the predominant among them being : (1) Mahyavanshi (2) Dhed (3) Vankar or Maru Vankar (4) Bhangi (5) Mehtar (6) Bhambi (7) Asadaru. They are mainly concentrated in Padra, Dabhoi, Karjan and Savli talukas of the district. The total population of the Scheduled Castes in the district according the Census of 1971 is 114,837 which forms

5.80 per cent of the district population and 6.84 per cent of the total Scheduled Castes population of Gujarat. About 35.52 per cent of the Scheduled Castes population of the district is literate. The extent of literacy among males and females is of the order of 49.78 per cent and 20.09 per cent respectively. Members of the Scheduled Castes are mainly engaged in agricultural labour, cultivation and processing, and manufacturing industries other than house-hold industries.

The main Scheduled Tribes found in this district are Bhils, Rathavas, Dhanakas, Nayak or Nayakadas, Gamits and Dubalas. They are mainly found in Chhota Udepur, Jabugam, Nasvadi, Sankheda and Dabhoi talukas. The total population of the Scheduled Tribes in the district according to the Census of 1971 is, 473,117 which forms 23.89 per cent of the total district population and 13.99 per cent of the total Scheduled Tribes population in the State. This district has the largest concentration of the Rathawa and Dhanaka tribes. The literate population is 11.32 per cent of the total Scheduled Tribes population of the district. The extent of literacy among male and female members is 17.90 per cent and 4.28 per cent respectively. Members of the Scheduled Tribes are mainly engaged in agricultural labour, cultivation and processing, and manufacturing industries other than household industries.

Advancement of Backward Classes

Prior to Independence, the Scheduled Castes and the Scheduled Tribes suffered from many disabilities. The untouchability complex prevailed among caste Hindus to a large extent inspite of the efforts of social and political workers. It must be said to the credit of the former Vadodara State that it made sincere attempts to improve their conditions. It initiated measures for their uplift and amelioration and opened a separate Backward Classes Department in 1932.

Antyaja Schools

In the 19th century, when it was not possible to provide education to Harijan children alongwith the children of the caste Hindus, separate schools and hostels for them were opened by the Vadodara State. In 1891-92 a special boarding school for Harijans was opened at Vadodara where free education was imparted with free boarding, clothing and lodging facilities. About a hundred students were admitted in the school. Scholarships were also awarded in each of the *antyaja* schools, the total amount coming to Rs. 45 p. m.¹ The school was closed in 1897 and in its place separate schools known as *antyaja* schools were opened at a number of centres.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), p. 321.

Similarly separate boarding houses for them were also opened. One *antyaja* boarding house was opened at Vadodara city which admitted 45 children who were provided free lodging, boarding and clothing. Later, when the public opinion was influenced by the teachings of Mahatma Gandhi, segregation of the Harijan students in separate *antyaja* schools was abolished in 1932. As a result, most of these separate schools were closed. The Scheduled Castes and other Backward Class students were admitted into all the public schools and treated on the same level as other students. Scholarships were awarded to *antyaja* children in the primary and secondary schools in the Baroda State. The State Government gave books and other school requisites free to these children. Scholarships of the aggregate value of Rs. 122 per month were awarded to *antyaja* children in the primary schools and 10 scholarships of the aggregate value of Rs. 54 per month were awarded to *antyaja* students in secondary schools. In the training college at Baroda where the Scheduled Castes students were first admitted in 1909-10, six *antyaja* scholars were reading for the different courses along with other Hindu scholars.¹

Because of their poverty, improvidence and ignorance, the Backward Class people obtained loans from money-lenders only on hypothecation of their lands. As they had no repaying capacity, the lands so alienated later passed in to the hands of money-lenders, and the Backward Class people became landless. In order to remedy this situation, the Backward Classes Protection Lands Act of 1938 was enacted. The Act prohibited alienation of lands of Backward Classes to non-backward classes including money-lenders except on an annual lease. Such lands could be alienated with the permission of the Suba (Sub-Collector) provided the land was to be transferred to a person of the backward class community. If any land was alienated against this rule, the Naib-Suba was empowered to restore it to the backward class persons. Since retrictions on transfer curtailed credit of the backward Classes, co-operative societies were organised to finance them on the security of their lands.

Apart from this economic measure, legislation was undertaken by the Vadodara State to remove the social disabilities of these classes. All Government temples and public wells were thrown open for the Harijans in Vadodara under the Social Disabilities Removal Act of 1939. It would also be pertinent to note here that the Baroda State had deputed members of the depressed class students abroad for higher studies and the late Dr. Ambedkar was one of them to be sent in 1913 A. D.² Dr. Ambedkar was also the first Harijan member to be nominated to the Vadodara State Legislative Council.

1. DESAI G. H. AND CLARKE A. B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 320-321.

2. DESABANDHU M. S. L. GOWDA, *Economic and Political Life in Baroda or Bhagya-nagar Raj*, (1944), p. 42.

Since Independence, the conditions of the Harijans and the Adivasis have improved considerably both economically and socially as a result of intensive work done by social workers and of various socio-economic legislative measures undertaken by Government to ameliorate their conditions. In addition to these enactments, which are in force in Gujarat, activities designed to bring home to the general public the evils of untouchability are also undertaken by award of prizes to villages doing outstanding work for the removal of untouchability, grant-in-aid to voluntary agencies working for the eradication of untouchability, etc. The general attitude of the people towards the Harijans has also changed for the better, more so in towns than in villages. They are treated on par with other members of society in public functions or places of entertainment. Their children are now admitted, without discrimination, to schools and colleges. They are now eligible for the highest position in the State and public bodies. They are thus being gradually accepted in society on the basis of social equality and the former serious handicaps from which they suffered are slowly but surely being removed.

Their housing conditions have appreciably improved as a result of various housing schemes sponsored by the Government and local bodies. As will be seen later, their economic condition has also improved due to various concessions given by the State to overcome the disabilities from which they suffered, in the past.

Welfare Schemes for the Backward Classes

The existing schemes for the welfare of the Backward Classes can be broadly classified into schemes for: (i) educational uplift, (ii) economic uplift, and (iii) health, housing and other schemes.

(i) Educational Uplift

Under the schemes for educational uplift, tuition fees and examination fees are granted to the Backward Class students without considering income factor. To encourage bright students, scholarships are awarded every year. The Backward Class students are given merit scholarships to enable them to purchase books, stationary, etc. Free boarding and lodging arrangements have also been provided through recognised hostels. The Government of India scholarships are awarded by the Director of Social Welfare, Gujarat State to students prosecuting studies in post-S. S. C. courses subject to certain conditions. During the First Five Year Plan, 24,099 Backward Class students were given books, etc. The students in the secondary schools were awarded freships and scholarships amounting to Rs. 93,000 during the same period. Provision was also made for liberal grants for construction of hostels for the Backward Class students. In 1968-69, the number of such hostels was 31 in the district.

In the Second Five Year Plan, 2,809 Backward Class students were awarded freships, scholarships, examination fees, etc., at a total cost of Rs. 4.91 lakhs. In the Third Five Year Plan period about 14,218 Backward Class students were benefitted while during the subsequent three annual Plan periods about 53,278 Backward Class students were covered under the scheme. Details about these hostels are given earlier in the chapter on 'Education and Culture.' The district has nine Ashram Shalas.¹

(ii) Economic Uplift

Most of the Backward Classes in this district are either agriculturists or landless labourers or artisans. Their condition can be improved only through schemes which have a direct bearing on their economic activity.

Keeping this in view, the programme for their economic uplift includes the following schemes :

(a) agricultural schemes, (b) financial assistance to cottage industries and professions, and (c) financial assistance to co-operative societies.

Under the agricultural schemes, financial assistance is provided to cultivators for digging wells, purchasing oilpumps, engines, agricultural implements, bullocks, bullockcarts, etc., as well as for minor irrigation purposes. Under the scheme for grant of subsidy for purchase of oil engines, subsidy is granted to members of the Backward Classes whose annual income does not exceed Rs. 3600 to the extent of Rs. 1500 or 50 per cent of the actual cost of the engine, accessories, etc., whichever is less. Under the scheme for grant of financial assistance for improvement of lands, the amount of subsidy is given at the rate of Rs. 100 per acre subject to the maximum limit of Rs. 500. In distribution of Government's waste land, priority is given to Harijans. Under another scheme, loans and subsidies to the extent of Rs. 1,000 per individual are granted to the Backward Class members (whose annual income does not exceed Rs. 3,600) for starting cottage industries or developing professions such as tailoring, carpentry, etc. The ratio of loan and subsidy is 50 : 50. Similar assistance is given for cottage industries and co-operative societies started by the Backward Classes.

During the Second Plan period about 363 persons were provided financial assistance to purchase seeds, bullocks, agricultural implements, etc. During the Third Plan period and subsequent three years 159 persons were given financial aid for wells and purchase of oil engines while 821 persons were given loans for household and other industries.²

1. *Pragati-ne-Panthe, Ayojana Adhar Varsh, Vadodara Jilla, Gujarat State*, pp. 46, 47, 48.

2. *Ibid.*

(iii) *Health, Housing and Other Schemes*

Under the head 'Health, Housing and other schemes' there are five schemes meant for the Scheduled Castes, viz., the construction of drinking water wells, medical aid, eradication of the practice of carrying night-soil as headload, provision of house-sites, and housing subsidy for sweepers and scavengers. The special schemes for the Scheduled Tribes include construction of roads, bridges and culverts and establishment of subsidiary health units. Free legal assistance is provided to the Scheduled Castes and the Scheduled Tribes in civil and criminal cases.

During the First Plan period a scheme was introduced under which financial assistance was granted to co-operative housing societies of the Backward Classes in the form of subsidy and interest-free loan. The scheme was discontinued in April 1961 but was reintroduced on a slightly different pattern from 1972-73. At present, the Backward Classes are given financial assistance in the form of subsidy to the extent of Rs. 900 or 75 per cent of the expenditure incurred for construction of the houses. *Gharthal* land is also given to Harijans or to their Co-operative Societies free of charge or at a nominal price. A scheme for grant of financial assistance to the Backward Classes for medical treatment in genuine cases is in existence. Under the scheme, patients suffering from T. B., Cancer, etc., are given assistance at the rate of Rs. 50 p. m. for 12 months. In ordinary cases, a lumpsum of Rs. 25 and in cases of accident, etc., a sum of Rs. 100 is given.

Although the general policy of the Government is that there should not be separate wells for Harijans, some relaxation in the matter has been made since 1971-72 for construction of new wells for the Harijans in hard cases. The full cost for construction of the wells to the extent of Rs. 3,000 is borne by the Government. During the Second and the Third plan periods financial assistance was given for construction of 37 and 50 drinking water wells respectively.

During the Third Five Year Plan, five Adivasi Development Blocks were established at Chhota Udepur, Zanz and Kwant of the Chhota Udepur taluka, and in Nasvadi and Tilakvada talukas of the district.

A total expenditure of Rs. 23.82 lakhs was incurred during Third Five Year Plan for these welfare schemes for the Backward Classes.

The details about the expenditure incurred separately for the Backward Classes from 1961-62 to 1972-73 are given below :

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Expenditure incurred under the State Plan and Centrally Sponsored Schemes for the Welfare of the Backward Classes in Vadodara District

(RS. IN LAKHS)

1	Plan		C. S. P.		Total (From 1966-67 to 1973-74)
	Year 1966-67 to 1968-69	Year 1969-70 to 1973-74	Year 1966-67 to 1968-69	Year 1969-70 to 1973-74	
	2	3	4	5	6
<i>Education</i>					
Scheduled Castes	.. 5.83	6.45	..	0.06	12.34
Scheduled Tribes	.. 9.72	14.56	..	..	24.28
Nomadic Tribes	.. ..	..	0.10	0.22	0.32
Denotified Tribes	.. ..	..	0.07	0.22	0.29
Total	.. 15.55	21.01	0.17	0.50	37.23
<i>Economic Uplift</i>					
Scheduled Castes	.. 0.07	2.81	..	..	2.88
Scheduled Tribes	.. 0.20	2.83	..	..	3.03
Nomadic Tribes	.. ..	0.12	..	0.21	0.33
Denotified Tribes	.. ..	0.33	..	0.12	0.45
Total	.. 0.27	6.09	..	0.33	6.69
<i>Health, Housing and Other Schemes</i>					
Scheduled Castes	.. 0.02	2.59	0.25	0.32	3.18
Scheduled Tribes	.. 0.05	2.37	..	..	2.42
Nomadic Tribes	.. ..	..	..	0.15	0.15
Denotified Tribes	.. ..	..	0.09	0.19	0.28
Total	.. 0.07	4.96	0.34	0.66	6.03
<i>Total</i>					
Scheduled Castes	.. 5.92	11.85	0.25	0.38	18.40
Scheduled Tribes	.. 9.97	19.76	..	..	29.73
Nomadic Tribes	.. ..	0.12	0.10	0.58	0.80
Denotified Tribes	.. ..	0.33	0.16	0.53	1.02
Grand Total	.. 15.89	32.06	0.51	1.49	49.95

Source : Director of Social Welfare, Gujarat State, Ahmadabad.

As the work of implementation of welfare schemes for the Backward Classes in municipal areas was not transferred to the District Panchayats, a separate machinery was created for the purpose and six posts of the Welfare Officers (State) as distinguished from those under the Panchayats were set-up in the municipal areas of the State. Their headquarters were fixed at Ahmadabad, Mahesana, Surat, Vadodara, Amreli and Rajkot. The Vadodara district falls under the jurisdiction of the Social Welfare Officer (State), Vadodara.

Before 1965, welfare activities for the Backward Classes were conducted by the Directorate of Social Welfare which had under it two wings: (1) the Backward Class Welfare Wing and (2) the Correctional Administration Wing. In 1965, the Backward Class Welfare Wing was separated and made an independent directorate known as the Directorate of Backward Class Welfare. In 1968 the separate Directorate of Backward Class Welfare was abolished and the work was transferred to the newly formed directorate named as the Directorate of Social Welfare. In 1969, this directorate was once again bifurcated and a new directorate for the Backward Classes was formed named as the Directorate of Harijan and Adivasi Welfare. In 1970, this directorate was re-designated as the Directorate of Social Welfare. It looks after the welfare activities of the Backward Classes. The officer at the district level working under this directorate is designated as Social Welfare Officer.

PUBLIC TRUSTS AND CHARITABLE ENDOWMENTS

The supervision over the affairs of public institutions of religious and charitable nature is not a modern phenomenon. At least from 300 B. C. onwards, the State authorities have been found to have interested themselves in the affairs of religious and charitable institutions and exercised supervision and control over them besides providing means for their maintenance and upkeep.

The history of the management of the charitable trusts under the former Baroda State may be broadly divided into the following periods :

- (i) the period upto 1904 under the Settlement Department,
 - (ii) the period from 1904 to 1948 under the Devasthan Branch of the Revenue Department, and
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- (i) The Settlement Department had a general charge of the charitable institutions. The department issued necessary instructions to the district

officers as to the manner in which the supervision was to be exercised. In November 1891, the Settlement Commissioner framed rules for maintenance and audit of the accounts and preparation of the list of the property of the public institutions. The Village Panch and the visiting State officers had to certify that the services in these public institutions were properly performed; and only on receipt of such certificates these institutions were granted the cash allowance by the State.

(ii) In 1904, the general supervision of these institutions was entrusted to the Revenue Department (Devasthan Branch). The Devasthan Branch dealt with matters relating to the public trusts and charitable endowments. For the purpose of supervision, such institutions were divided under three main classes; viz., (a) temples and other charitable religious institutions which were either managed and maintained directly by the Government, (b) public institutions (Sarvajanik Sansthas) which were managed by individuals with the State-aid in the form of *barkhali* of alienated land, *inam* villages or cash, and (c) public institutions which received no State-aid. Of these the Government was obviously more directly concerned with the first two categories. Those institutions, which were managed and maintained directly by the Government were known as *khanagi devasthan*s. These were founded by the ruling princes or their relations. There were 19 *khanagi devasthan*s in the whole Baroda State. Most of these were functioning in Vadodara city itself. These included; the Kedareshwar Khichari and the Gyarmi Karkhanas, the alm houses for helpless Hindus and Muslims besides the Vithal Mandir near Mandvi, Tarkeshwar Mandir on the Sur Sagar lake, the Becharaji temple near the public park and the temple of Khanderao. These were looked after by the *khanagi* Department till 1904 when their management was transferred first to the Settlement Department and there after to the Devasthan Branch of the Revenue Department. In addition to the *khanagi devasthan*s there were 28 religious institutions in the Baroda State under the direct State management. Of these, the most important was the ancient temple of Kalika Mata in the walls of the famous Hiragate at Dabhoi. For the control and management of this institution a manager was appointed who was under the supervision of the respective Vahivatdar and the Suba.

In the year 1904-05, the Vadodara State Government passed two Acts called (i) "Sarvajanik Sanstha Nibandh" and (ii) "Dharmadaya Sarvajanik Milkat Nibandh". The main object of these Acts was to ensure that the management of the public institutions was conducted for the benefit of the public. Government exercised supervision and control over those institutions which received assistance from the State. In the case of others, the State required that all accounts of property should be properly maintained and that any serious abuse noticed had to be referred to the Civil Court.

(iii) *Health, Housing and Other Schemes*

Under the head 'Health, Housing and other schemes' there are five schemes meant for the Scheduled Castes, viz., the construction of drinking water wells, medical aid, eradication of the practice of carrying night-soil as headload, provision of house-sites, and housing subsidy for sweepers and scavengers. The special schemes for the Scheduled Tribes include construction of roads, bridges and culverts and establishment of subsidiary health units. Free legal assistance is provided to the Scheduled Castes and the Scheduled Tribes in civil and criminal cases.

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Scheduled Castes	.. 0.02	2.59	0.25	0.32	3.18
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Scheduled Castes	.. 5.92	11.85	0.25	0.38	18.40
Scheduled Tribes	.. 9.97	19.76	..	..	29.73
Nomadic Tribes		0.12	0.10	0.58	0.80
Denotified Tribes		0.33	0.16	0.53	1.02
Grand Total	.. 15.89	32.06	0.51	1.49	49.95

Source : Director of Social Welfare, Gujarat State, Ahmadabad.

Reservation of Seats for the Backward Classes

The Backward Classes are offered certain concessions in Government service. Before the formation of the Gujarat State, when the district formed part of the erstwhile Bombay State, the Government of Bombay had fixed the following minimum percentages for reservation of seats in Government service for the Backward Classes in accordance with the provisions made under Article 335 of the Constitution of India.

STATEMENT XVII-4

Reservation of Seats

Category of Service 1	Percentage of vacancies to be reserved in recruitment 2
1. All Class I and II services and posts thereunder	12½
2. Class III service	
(i) Scheduled Castes	6
(ii) Scheduled Tribes	7
(iii) Other Backward Classes	9
3. Class IV service	
(i) Scheduled Castes	7
(ii) Scheduled Tribes	9
(iii) Other Backward Classes	11

The Government of Gujarat continued these reservation percentages till 1969, when it introduced certain changes which are in force at present. In the case of the State level posts, the Government has fixed the reservation percentages for the Scheduled Castes and Scheduled Tribes for the whole State as under :

Sl. No. 1	Category 2	Classification of Services and percentage of reservation		
		Class I and II 3	Class III 4	Class V 5
1	Scheduled Castes	5	7	7
2	Scheduled Tribes	10	14	14

1. Government of Gujarat, General Administration Department, Resolution No. BAC-1064-3373-CH, dated 20th September, 1969.

Thus the reservation percentages are reduced in the case of Class I and Class II posts. In the case of the Scheduled Castes, there is no material change in reservation percentages for Class III and Class IV services. But the reservation percentages in the case of the Scheduled Tribes have been doubled in the case of Class III services and raised from 9 to 14 in the case of Class IV for them. Thus the percentages have been changed, having regard to the population of the Scheduled Castes and Scheduled Tribes.

In the case of the district level posts, the percentages of reservation of seats are 7 per cent for the Scheduled Castes and 25 per cent for the Scheduled Tribes for Class III and Class IV services.

Other Concessions

For the General Elections to the Legislative Assembly three constituencies, viz., Jetpur, Chhota Udepur and Nasvadi were reserved exclusively for the Scheduled Tribes candidates while Karjan constituency was reserved for the Scheduled Castes candidates. In the elections to the Gram Panchayats, Taluka Panchayats and the District Panchayat also seats for the Scheduled Castes and Scheduled Tribes are reserved according to their population.

For admission to the educational institutions also a certain number of seats are reserved for the Backward Class students.

They are also given concession in the requirements of the minimum percentages of marks required for admission to the various educational faculties.

Administrative Set-up

Before the Panchayati Raj was introduced in Gujarat in 1963, activities for the welfare of the Backward Classes were conducted by the Social Welfare Department. The departmental head was designated as the Director of Social Welfare, who had under him in his office one Deputy Director, one personnel Assistant, one officer incharge of Backward Classes and Tribal Welfare and two Social Welfare Officers, in addition to the District Social Welfare Officers at the district headquarters.

This position was radically changed on account of the introduction of the Panchayati Raj with effect from 1st April, 1963, when almost all the welfare schemes of non-technical nature were transferred to the District Panchayats with the necessary staff. At present, every District Panchayat in the State is allotted the post of a Social Welfare Officer to implement various welfare schemes in the Panchayat areas.

As the work of implementation of welfare schemes for the Backward Classes in municipal areas was not transferred to the District Panchayats, a separate machinery was created for the purpose and six posts of the Welfare Officers (State) as distinguished from those under the Panchayats were set-up in the municipal areas of the State. Their headquarters were fixed at Ahmadabad, Mahesana, Surat, Vadodara, Amreli and Rajkot. The Vadodara district falls under the jurisdiction of the Social Welfare Officer (State), Vadodara.

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The State had created three Devasthan Funds in 1909-10. These were (i) Repair Fund (ii) Reserve Fund, and (iii) General Fund. The Repair Fund was meant for the repairs of the buildings of such institutions. The Reserve Fund was meant to meet unforeseen contingent expenses. Lastly, the General Fund was intended for religious and charitable purposes of public utility such as establishment of schools for imparting religious instructions and for the maintenance of the disabled persons.¹

(iii) After integration in 1949, it was noticed that there was no centralised supervision over public trusts in the whole State. Central and State laws were enacted for State supervision over public trusts in the former Bombay State. The Bombay Public Trusts Registration Act, 1935 was made applicable to public trusts existing for the benefit of Hindu community; the Musalman Wakf (Bombay Amendment) Act, 1935 was applicable to the Muslim Wakfs only and the Parsi Public Trusts Registration Act, 1936, regulated public trusts existing for the benefit of the Parsi community.

The Central enactments which were applicable to all the public trusts in the State were the Charitable and Religious Trusts Act, 1920, and the provisions of sections 92 and 93 of the Civil Procedure Code.

The Bombay Public Trusts Act, 1950 was enacted with a view to covering all trusts irrespective of caste, creed or community and to introduce uniformity in their supervision and control. The Act provides for the establishment of special machinery for dealing with all matters concerning the administration and management of public trusts. It provides for compulsory registration of all public trusts, and for the appointment of Deputy and Assistant Charity Commissioners for regions and sub-regions into which the State is divided for administrative convenience. The Vadodara districts, is under the jurisdiction of Assistant Charity Commissioner, Vadodara.

In 1973, the total number of trusts registered in the Vadodara district was 5,883. Of them, 2,464 were Hindu trusts, 651 Muslim trusts, 2,390 cosmopolitan trusts and the remaining were the trusts registered under the Societies Registration Act. Some of the important among them are listed below :

1. Shri Avadhut Nivas Trust, Nareshwar (Karjan Taluka)
2. Shri Satyanarayan Mandir Trusts, Malsar (Sinor Taluka)
3. Shri Bhagwatacharya Narayanacharya Trust, Balaji Mandir, Chandod (Dabhoi Taluka)

4. Sir Sayajirao Diamond Jubilee and Memorial Trust, Vadodara
5. Anand Niketan Trust, Rangpur (Chhota Udepur Taluka)
6. Khushalchand Charity Trust, Vadodara
7. Aryakumar Mahashala, Vadodara
8. Baroda City Masjid Sabha, Vadodara
9. Shri Guru Jagaji Maharaj Mandir, Sokhda (Vadodara Taluka)
10. Shri Baliadev Mandir, Por (Vadodara Taluka)
11. Shri Tulja Mata Mandir, Ranu (Padra Taluka)
12. Kayavarohan Tirth Seva Samaj of Karvan (Vadodara Taluka)
13. Shri Narsinhji Mandir, Vadodara
14. Shri Vithal Mandir, Vadodara
15. Bethak Mandir *alias* Dwarkanathji Mandir, Vadodara
16. Parsi Panchayat Charitable Funds, Vadodara
17. Baroda State Muslim Education Society, Vadodara
18. Rosary Church, Vadodara
19. Maharaja Fatehsinh Museum Trust, Vadodara
20. Panjra Pole, Vadodara
21. Kabir Sahebnu Mandir, Vadodara
22. Govardhannathji Mandir, Vadodara
23. Bahucharaji Matanu Mandir, Vadodara
24. Madhya Gujarat Vepari Mandal, Vadodara
25. Tarkeshwar Mahadev, Vadodara
26. Shri Sardar Bhavan Trust, Vadodara

1. DESAI G. H. AND CLARKE A.B., *Gazetteer of the Baroda State*, Vol. II, (1923), pp. 165 to 171.

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

PUBLIC LIFE

The people of Vadodara were not vocal to voice their opinion, till persons like Shri Aurobindo Ghosh who was then a professor at Vadodara inspired them. There were other social workers like Shri Motibhai Amin, Khaserao Jadhav, Keshavrao Deshpande, etc. The last two were instrumental in establishing the Gangnath Vidyalaya which served as a meeting place for the revolutionaries. The Bang-Bhang movement initiated in the country as a result of the partition of Bengal also lent support to public agitation in this part of the country.

The public life in the former Baroda State had thus remained unorganised almost till the first quarter of the present century. The rulers normally did not favour public participation in the affairs of their State. They believed that a higher level of education and knowledge that was necessary for popular representation in the State Government was not generally to be found among the people. This policy was changed in 1938 when the Baroda State appointed a representative committee of officials and non-officials to suggest measures for association of the people with the affairs of the State. The Committee recommended in its report that the Dhara Sabha should be enlarged on the basis of popular representation. According to the recommendations of the Committee the Dhara Sabha was reconstituted in 1940 under the Government of Baroda Act, 1940. The strength of the Dhara Sabha was increased from 31 to 60 and adequate representation was given to commerce, industry and labour. The reconstitution of the Dhara Sabha was a major step taken by Pratapsinhrao Gaekwad associating the people with the State administration. The Dhara Sabha was given powers to initiate and pass legislation and to discuss and vote on the budget. These measures strengthened the organisation of the public life in the district.

The beginning of the organised public life can be traced back to the establishment of the Praja Mandal of the Baroda State in the year 1916. The activities of the Praja Mandal had popular support. As a result the public opinion was organised for the first time in the district. The Praja Mandal also played an important part during the non co-operation movement of 1942. Several social workers of the Baroda State participated in this movement and courted arrest.

However, it was only after Independence that the public opinion became organised in the real sense of the term. Fundamental rights guaranteed in the constitution encouraged people to publicly express their views without any fear. The adult franchise inspired even the common man to take greater interest in the day-to-day working of the Government. After the introduction of the Panchayati Raj, even the village people have become conscious of their rights and opinion.

REPRESENTATION OF THE DISTRICT IN THE UNION AND STATE LEGISLATURES

The Vadodara district has at present two representatives in the Union Legislature (Lok Sabha) and 13 representatives in the State Legislative Assembly (Vidhan Sabha). At the time of the first General Elections held in 1952, a part of the district was amalgamated with the adjoining district of Panchmahals for election purposes to give representation to the Scheduled Castes. Thus, there was one double-member Parliamentary constituency called Panchmahals-cum-Baroda East, and one single member constituency named Baroda West. Of the two members in the former one was to represent the Scheduled Castes. In the subsequent elections of 1957 and 1962 the district had one single-member constituency named Baroda. Due to the alterations in the territorial areas, the district was given two single-member constituencies in the General Elections of 1967. Since then the district continues to have two constituencies for the Lok Sabha. These are (1) Vadodara and (2) Dabhoi.

As regards the State Legislatures the district had 10 representatives in the Bombay State Legislative Assembly at the time of the General Elections of 1952. There was one double-member constituency named Vadodara-Vaghodia in which one seat was reserved for the Scheduled Castes. Besides, there were 8 single-member constituencies. In the General Elections of 1957, the number of double-member constituencies was increased to two while the number of single-member constituencies was brought down to 6. Chhota Udepur and Savli constituencies were made double-member constituencies. In the former, one seat was reserved for the Scheduled Tribes and in the latter one seat was reserved for the Scheduled Castes. The Nasvadi single-member constituency was also reserved for the Scheduled Tribes.

After the formation of the Gujarat State, the double-member constituencies were discontinued. In the General Elections of 1962, the number of constituencies in the district was increased to 12. Of these, two namely, Nasvadi and Sankheda, were reserved for the Scheduled Tribes and one, namely Karjan constituency was reserved for the Scheduled Castes. The number of constituencies has increased to 13 since the General Elections of 1967. Thus, at present there are 13 single-member Assembly constituencies in the district. Three of them, namely Jetpur, Nasvadi and Chhota Udepur are reserved for the Scheduled Tribes while Karjan is reserved for the Scheduled Castes.

The details of the present extent of the Parliamentary and Assembly constituencies in the district are as follows :

Delimitations of Parliamentary and Assembly Constituencies

Sl. No.	Name of the Constituency	Extent in terms of Parliamentary / Assembly Constituencies
1	2	3
PARLIAMENTARY CONSTITUENCIES		
1	Vadodara ..	.. Borsad, Bhadran, Savli, Vadodara City, Raopura, Sayajiganj and Vadodara Rural.
2	Dabhoi ..	.. Chhota Udepur, Nasvadi, Sankheda, Dabhoi, Vaghodia, Padra and Karjan.
ASSEMBLY CONSTITUENCIES		
1	Jetpur (ST)	.. 105 villages of Chhota Udepur taluka and 116 villages of Jabugam taluka.
2	Chhota Udepur (ST)	.. Chhota Udepur taluka (excluding 105 villages included in Jetpur constituency) and 20 villages of Jabugam taluka.
3	Nasvadi (ST)	.. Nasvadi taluka, Tilakwada mahal and 77 villages of Jabugam taluka.
4	Sankheda ..	.. Sankheda taluka
5	Dabhoi ..	.. Dabhoi taluka
6	Vaghodia ..	.. Vaghodia taluka; 24 villages of Vadodara taluka; and 22 villages of Savli taluka.
7	Savli ..	.. Savli taluka (excluding 22 villages included in Vaghodia constituency).
8	Vadodara City	.. Census ward 4 (Vadodara City), Census ward 5 (Wadi), Pratapnagar Railway Colony and Danteswar village area in Vadodara municipality.
9	Raopura ..	.. Census ward 2 (Raopura), Census ward 3 (Fatehpura), Military area and the village areas in Vadodara municipality and 11 villages of Vadodara taluka.
10	Sayajiganj ..	.. Census ward 1 (Sayajiganj), Census ward 6 (Babajipura), and the village areas in Vadodara municipality and the 17 villages of the Vadodara taluka.
11	Vadodara Rural	.. Vadodara taluka (excluding Vadodara Municipality and 24, 11, and 17 villages included in Vaghodia, Raopura and Sayajiganj constituencies respectively) and 6 villages of Padra circle in Padra taluka.
12	Padra Rural	.. Padra taluka (excluding 6 villages included in Vadodara Rural constituency).
13	Karjan (SC)	.. Karjan taluka and Sinor mahal.

Source : *The Gujarat Government Gazette*, Vol. VII, No. 13, Part IV-C, dated 31st March, 1968, pp. 560, 572, 573, 574.

POLITICAL PARTIES AND ORGANISATIONS

The Indian National Congress has dominated the political field in this district ever since the first General Elections of 1952. Its hold was so complete during the initial period that no other political party could contest all the seats of the district. The exception was in the year 1962 when the newly formed Swatantra Party challenged the supremacy of the Congress and put up candidates against the Congress in all the 12 Assembly seats. The result was, however, shocking for the Swatantra Party as it lost 10 out of the 12 constituencies. In the General Elections that followed in 1967, the Swatantra Party continued to be the main rival of the Congress. It strengthened its position this time by capturing one Parliamentary seat and 5 Assembly seats. The position changed to a great extent after the split in the Congress Party in 1969. The main rivals in the elections of 1971-72 were the new Congress and the Congress (O).

There is no party of local origin in the district. All the political parties have their affiliations with the all India bodies.

To study the relative hold of the various political parties in the district from time to time since the first General Elections of 1952, it would be interesting to examine the results of the General Elections held so far.

The General Elections of 1952

As many as six political parties took part in the General Elections of 1952. They were the Indian National Congress, the Krishikar Lok Party, the Socialist, the Communist, the Scheduled Caste Federation and the F. B. (Marxist) besides 10 independent candidates. The Congress captured one of the three seats uncontested while in other two it defeated its rival candidates belonging to the Socialist and the Krishikar Lok Party.

In the Assembly Elections it won nine seats, two of which were uncontested. The remaining one seat was secured by an independent candidate. The Socialist Party contested two Parliamentary and 6 Assembly seats. It won one Parliamentary seat, but lost in the Assembly elections. The Krishikar Lok Party contested one Parliamentary and 7 Assembly seats. It lost the Parliamentary election and won one Assembly seat. The Communist and the S. C. Federation each contested one Assembly seat. The F. B. Marxist contested two Assembly seats. All of them lost the battle. Thus the Congress established its hold in the district. The Congress polled 52.32 per cent of the votes, the Krishikar Lok Party 18.95 per cent, the Socialist 7.20 per cent, the F. B. Marxists 1.95 per cent, the S. C. Federation 1.26 per cent, the Communists 0.86 per cent and the independent candidates 17.46 per cent to the total votes polled in the Legislative Assembly. The percentage of valid voting was 46.29 in the Parliamentary constituencies and 40.72 in the Assembly constituencies.

The following table shows the party affiliations of the contesting candidates and the number of valid votes polled by them in the General Elections of 1952.

STATEMENT XVIII-1
General Election Results, 1952

Sl. No.	Name of the constituency	Party affiliations of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
1	2	3	4	5	6
THE HOUSE OF THE PEOPLE (LOK SABHA)					
1	Panchmahals-cum-Vadodara East (double-member)	1. Congress 2. Congress 3. Socialist	3,18,085	2,01,891 uncontested 1,16,194	63.47 36.53
2	Vadodara West.	1. Socialist 2. Krishikar Lok Party 3. Independent	2,01,508	55,595 54,494 91,419	27.59 27.04 45.37
THE LEGISLATIVE ASSEMBLY					
1	Vadodara City	1. Congress 2. Krishikar Lok Party 3. Socialist 4. Communist 5. Independent	23,764	12,850 4,731 3,260 2,300 623	54.07 19.91 13.72 9.68 2.62
2	Vadodara-Vaghodia (double-member)	1. Congress 2. Krishikar Lok Party 3. Krishikar Lok Party 4. Socialist 5. Socialist 6. S. C. Federation 7. F. B. (Marxist) G.R. 8. Independent	92,548	33,023 13,454 7,226 6,300 5,424 3,349 2,215 21,557	35.68 14.54 7.81 6.81 5.86 3.62 2.39 23.29
3	Padra	1. Congress 2. Krishikar Lok Party 3. Socialist 4. Independent 5. Independent 6. Independent 7. Independent	35,279	14,075 4,214 1,048 9,321 3,977 1,937 707	39.90 11.94 2.97 26.42 11.27 5.49 2.01
4	Karjan-Sinor	1. Congress 2. Krishikar Lok Party 3. Socialist 4. Independent	32,202	22,500 6,268 2,184 1,250	69.87 19.46 6.79 3.88
5	Dabhoi	1. Congress 2. Krishikar Lok Party 3. Socialist 4. Independent	28,119	17,561 8,490 946 1,122	62.46 30.19 3.36 3.99
6	Savli	1. Congress 2. Krishikar Lok Party 3. F. B. (Marxist) G. R. 4. Independent	27,405	17,448 6,045 2,983 929	63.67 22.06 10.88 3.39
7	Nasvadi	1. Congress	uncontested		
8	Sankheda	1. Congress 2. Independent	26,767	21,748 5,019	81.25 18.75
9	Chhota Udepur	1. Congress	uncontested		

Source :

Report on the General Elections, 1951-52, Election Commissioner, Government of India, Vol. II, pp. 28, 269, 270.

The General Elections of 1957

In the 1957 General Elections, there were three political parties, viz., the Congress, the Jana Sangh and the Ram Rajya Parishad besides 12 independent candidates contesting the elections. The Congress contested one Parliamentary seat and 10 Assembly seats and won all the seats. The Ram Rajya Parishad and the Jana Sangh each contested one Assembly seat in which they were defeated. The Congress polled 60.64 per cent, while the Jana Sangh secured only 0.75 per cent, and the Ram Rajya Parishad 0.21 per cent of the votes. The independent candidates as a group got 38.40 per cent of the total votes polled. The percentage of valid voting was 64.00 in the Parliamentary constituencies and 56.70 in the Assembly constituencies.

The following table shows the party affiliations of the contesting candidates and the number of valid votes polled by them.

STATEMENT XVIII-2
General Election Results, 1957

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
THE HOUSE OF THE PEOPLE (LOK SABHA)					
1	Vadodara ..	1. Congress	2,39,276	1,51,461	63.30
		2. Independent		87,815	36.70
THE LEGISLATIVE ASSEMBLY					
1	Chhotu-Udepur (double-member) (ST)	1. Congress	1,14,920	41,643	36.24
		2. Congress		35,165	30.59
		3. Independent		25,038	21.79
		4. Independent		13,074	11.38
2	Nasvadi (ST) ..	1. Congress	26,491	15,352	57.95
		2. Independent		11,139	42.05
3	Karjan ..	1. Congress	44,773	26,525	59.24
		2. Independent		18,248	40.76
4	Dabhoi ..	1. Congress	44,487	28,919	65.01
		2. Independent		15,568	34.99
5	Savli (double-member) (SC)	1. Congress	1,29,195	40,712	31.51
		2. Congress		37,194	28.79
		3. Independent		23,716	18.36
		4. Independent		17,601	13.62
		5. Independent		6,056	4.69
		6. Independent		3,916	3.03
6	Vadodara City East	1. Congress	41,960	23,332	55.61
		2. Independent		18,628	44.39
7	Vadodara City West	1. Congress	40,431	19,843	49.08
		2. Jana Sangh		3,619	8.95
		3. Ram Rajya Parishad		997	2.46
		4. Independent		15,972	39.51
8	Padra ..	1. Congress	37,766	22,396	59.30
		2. Independent		15,370	40.70

Source :

Report on the General Elections, 1957, Election Commissioner, Government of India, Vol. II, pp. 28, 130, 698, 699, 700, 701.

The General Elections of 1962

The unique feature of the General Elections of 1962 was that there were as many as 8 political parties in the field besides 13 independent candidates. These included the Congress, the Jana Sangh, the Nutan Gujarat Janata Parishad, the Ram Rajya Parishad, the Republican Party, the Socialist Party, the Praja Socialist Party and the newly formed Swatantra Party. The keen contest, however, was between the Congress and the Swatantra parties both of which put up candidates for all the 12 Assembly seats. The Nutan Gujarat Janata Parishad and the Jana Sangh each contested 3 Assembly seats, the Praja Socialist 4, the Ram Rajya Parishad 2 and the Republican and Socialist party each contested one seat in the Assembly constituencies. The Congress captured 10 Assembly seats out of 12, while the newly formed Swatantra party won only two. The remaining parties completely lost the battle. As regards the elections in the Parliamentary constituency, the Congress candidate won with a thumping majority of over 1.44 lakh votes. All his rival candidates were independent candidates who lost deposits. Thus the Congress continued its hold over the political life of the district. The Congress got 51.26 per cent, the Swatantra 29.60 per cent, the Praja Socialist 7.09 per cent, the Nutan Gujarat Janata Parishad 4.16 per cent, the Jana Sangh 1.62 per cent, the Ram Rajya Parishad 0.21 per cent, the Republican 0.17 per cent, the Socialist 0.08 per cent and the independent candidates 5.81 per cent of the total votes polled in the Assembly constituencies. The percentage of valid voting was 58.16 in the Parliamentary constituency and 55.68 in the Assembly constituencies.

The following table shows the party affiliations of the contesting candidates and the number of valid votes polled by them.

STATEMENT XVIII-3
General Election Results, 1962

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
THE HOUSE OF THE PEOPLE (LOK SABHA)					
1	Vadodara ..	1. Congress ..	2,59,393	1,89,562	73.08
		2. Independent ..		45,590	17.58
		3. Independent ..		16,574	6.39
		4. Independent ..		7,667	2.95
THE LEGISLATIVE ASSEMBLY					
1	Jabugam ..	1. Congress ..	27,124	16,419	60.53
		2. Swatantra ..		9,429	34.76
		3. Independent ..		1,276	4.71

STATEMENT XVIII-3—contd.

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
1	2	3	4	5	6
2	Chhotu Udepur	1. Swatantra .. 2. Congress .. 3. Independent ..	25,395	12,270 8,223 4,902	48.32 32.38 19.30
3	Nasvadi (ST)	1. Congress .. 2. Swatantra .. 3. Independent ..	25,399	12,544 10,813 2,042	49.39 42.57 8.04
4	Sankheda (ST)	1. Congress .. 2. Swatantra .. 3. Independent ..	33,371	19,135 12,205 2,031	57.34 36.57 6.09
5	Vaghodia	1. Congress .. 2. Swatantra .. 3. Nutan Gujarat Janata-Parishad ..	28,663	16,839 7,980 3,844	58.75 27.84 13.41
6	Savli	1. Congress .. 2. Praja Socialist Party .. 3. Swatantra .. 4. Independent .. 5. Independent ..	39,591	15,580 10,762 3,667 8,470 1,112	39.35 27.18 9.26 21.39 2.82
7	Vadodara North	1. Congress .. 2. Swatantra .. 3. Nutan Gujarat Janata-Parishad .. 4. Jana Sangh ..	33,248	19,204 8,976 4,233 835	57.76 27.00 12.73 2.51
8	Vadodara City-West	1. Congress .. 2. Praja Socialist Party .. 3. Swatantra .. 4. Ram Rajya Parishad ..	39,295	19,769 17,081 1,907 538	50.31 43.47 4.85 1.37
9	Vadodara City-East	1. Congress .. 2. Swatantra .. 3. Jana Sangh .. 4. Republican .. 5. Ram Rajya Parishad .. 6. Socialist .. 7. Independent .. 8. Independent ..	43,825	24,987 12,492 4,418 693 324 300 312 299	57.02 28.50 10.08 1.58 0.73 0.69 0.71 0.69
10	Dabhoi	1. Congress .. 2. Swatantra .. 3. Jana Sangh .. 4. Praja Socialist Party ..	37,510	18,297 17,241 1,398 574	48.78 45.96 3.73 1.53
11	Karjan (SC)	1. Congress .. 2. Swatantra ..	32,318	23,614 8,704	73.07 26.93
12	Padra	1. Swatantra .. 2. Congress .. 3. Nutan Gujarat Janata-Parishad .. 4. Praja Socialist Party .. 5. Independent .. 6. Independent ..	44,421	15,730 15,639 8,988 681 1,826 1,577	35.41 35.21 20.23 1.49 4.11 3.55

Source :

Report on the General Elections, 1962, Election Commissioner, Government of India, Vol. II, pp. 29, 193, 194.

The General Elections of 1967

The excitement of the 1962 elections was absent in 1967 as there were only three political parties in the field viz., the Congress, the Swatantra and the Praja Socialist. The Congress and the Swatantra put up candidates for both the Parliamentary seats. For the Assembly, they put up 13 and 12 candidates respectively. The Congress retained Vadodara Parliamentary seat and the Swatantra won the newly formed Dabhoi seat. The Congress captured seven Assembly seats, and the Swatantra captured five of the 13 Assembly seats. Thus the Swatantra party proved almost equal to the Congress both in the Parliamentary and Assembly elections. The Praja Socialist party which contested 3 Assembly seats captured only one seat. The Congress got 47.08 per cent, the Swatantra 38.90 per cent, the Praja Socialist got 5.99 per cent and the independent candidates polled 8.03 per cent of the total votes polled in the Assembly constituencies. The percentage of valid voting was 64.09 in the Parliamentary constituencies and 60.35 in the Assembly constituencies.

The following table shows detailed results of the General Elections of 1967.

STATEMENT XVIII-4

General Election Results, 1967

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
1	2	3	4	5	6
THE HOUSE OF THE PEOPLE (LOK SABHA)					
1	Vadodara	1. Swatantra .. 2. Congress .. 3. Independent ..	2,89,247	1,52,903 1,30,586 5,758	52.86 45.15 1.99
2	Dabhoi	1. Congress .. 2. Swatantra ..	2,91,317	1,59,453 1,31,864	54.74 45.26
THE LEGISLATIVE ASSEMBLY					
1	Jetpur (ST)	1. Swatantra .. 2. Congress ..	23,374	13,358 10,016	57.15 42.85
2	Chhotu Udepur (ST)	1. Congress .. 2. Swatantra ..	28,421	15,102 13,319	53.14 46.86

STATEMENT XVIII-4—*contd.*

Sl. No. 1	Name of the constituency 2	Party affiliation of the contesting candidates 3	Total valid votes polled 4	Number of valid votes polled by each candidate 5	Percentage to total votes polled 6
3	Nasvadi (ST)	1. Congress .. 2. Swatantra ..	41,109	21,940 19,169	53.37 46.63
4	Sankheda ..	1. Congress .. 2. Swatantra ..	44,243	32,187 12,056	72.75 27.25
5	Dabhoi ..	1. Swatantra .. 2. Congress .. 3. Independent ..	43,699	20,761 19,228 3,707	47.52 44.00 8.48
6	Vaghodia ..	1. Congress .. 2. Swatantra .. 3. Independent ..	32,620	12,844 12,704 7,072	39.37 38.95 21.68
7	Savli ..	1. Congress .. 2. Praja Socialist Party .. 3. Swatantra .. 4. Independent ..	41,110	15,449 13,276 11,095 1,290	37.58 32.29 26.99 3.14
8	Vadodara City	1. Swatantra .. 2. Congress .. 3. Independent .. 4. Independent .. 5. Independent ..	39,280	21,826 13,565 2,805 579 505	55.57 34.53 7.14 1.47 1.29
9	Raopura ..	1. Praja Socialist Party .. 2. Congress .. 3. Swatantra .. 4. Independent .. 5. Independent ..	32,993	13,918 10,521 7,300 1,074 180	42.18 31.89 22.13 3.26 00.54
10	Vadodara Rural	1. Swatantra .. 2. Congress .. 3. Independent ..	39,655	22,522 13,872 3,261	56.79 34.98 8.23
11	Sayajiganj ..	1. Congress .. 2. Independent .. 3. Independent .. 4. Independent .. 5. Independent ..	36,232	21,739 10,478 3,064 657 294	60.00 28.92 8.46 1.81 00.81
12	Padra ..	1. Congress .. 2. Swatantra .. 3. Praja Socialist Party .. 4. Independent ..	48,222	26,263 17,471 2,580 1,908	54.46 36.23 5.35 3.96
13	Karjan (SC) ..	1. Swatantra .. 2. Congress .. 3. Independent ..	45,745	21,639 21,125 2,981	47.30 46.18 6.52

Source :

Report on the General Elections, 1967, Election Commissioner, Government of India, Vol. II, pp. 42, 247, 248.

The Mid-term Parliamentary Elections of 1971

The Mid-term Parliamentary Elections which were held in 1971 brought a major political change due to the split in the Congress and formation of the two rival parties, viz., the Congress (R) and the Congress (O). These were three political parties, viz., the Congress (R), the Congress (O) and the Bhartiya Krantidal, though the main contest was between the Congress (R) and the Congress (O). The Vadodara seat was secured by the Congress (O) while the Dabhoi seat was won by the Congress (R). The Congress (O) polled 53.04 per cent, the Congress (R) 45.64 per cent, the Bhartiya Krantidal 0.51 per cent and the Independent candidates 0.81 per cent of the total votes polled in both Parliamentary constituencies. The percentage of valid voting was 59.53.

The following statement shows the detailed results of the elections.

STATEMENT XVIII-5

Mid-Term Parliamentary Election Results, 1971

Sl. No. 1	Name of the constituency 2	Party affiliation of the contesting candidates 3	Total valid votes polled 4	Number of valid votes polled by each candidate 5	Percentage to total valid votes polled 9
HOUSE OF THE PEOPLE (LOK SABHA)					
1	Vadodara ..	1. Congress (O) .. 2. Congress .. 3. Bhartiya Krantidal ..	2,69,744	1,69,382 97,418 2,944	62.79 36.12 1.09
2	Dabhoi ..	1. Congress .. 2. Congress (O) .. 3. Independent .. 4. Independent ..	3,02,526	1,63,779 1,34,104 2,718 1,925	54.14 44.33 0.89 0.64

Source : Collector, Vadodara District, Vadodara.

The General Elections of 1972

In the General Elections to the Legislative Assembly held in 1972, there were 7 political parties, viz., the Congress, the Congress (O), the Jana Sangh, the Swatantra, the Communist, the Socialist and the Samyukta Socialist Party. The Congress Party put up candidates for all the 13 seats while the Congress (O) contested 12 seats. The Jana Sangh contested six seats, the Swatantra and the Socialist contested four each, the Communist contested two, while the S. S. P. contested only one seat. The Congress got a landslide

victory by capturing 11 out of the 13 Assembly seats. The Congress (O) was routed and secured only one. The remaining one seat went to an independent candidate. The Congress polled 53.10 per cent of the total valid votes polled while the Congress (O) secured 23.28 per cent, the Jana Sangh 9.98 per cent, the Socialist 2.50 per cent, the S. S. P. 1.10 per cent, the Swatantra 0.66 per cent and the Communist 0.67 per cent. The independent candidates who were 23 in number polled 8.68 per cent. The percentage of valid voting was 56.94.

The following table shows the detailed election results.

STATEMENT XVIII-6

General Election Results, 1972

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
1	2	3	4	5	6
THE LEGISLATIVE ASSEMBLY					
1	Jetpur (ST) ..	1. Congress (O) .. 2. Congress .. 3. Independent ..	24,373	17,074 6,160 1,139	70.05 25.27 4.68
2	Chhotu Udepur (ST) ..	1. Congress .. 2. Congress (O) .. 3. Jana Sangh .. 4. Independent ..	28,041	17,419 6,454 2,049 2,119	62.12 23.02 7.30 7.56
3	Nasvadi (ST) ..	1. Congress .. 2. Congress (O) .. 3. Communist .. 4. Swatantra .. 5. Independent .. 6. Independent .. 7. Independent .. 8. Independent .. 9. Independent .. 10. Independent ..	36,303	19,063 8,677 2,947 1,436 1,287 991 730 600 357 215	52.51 23.90 8.12 3.96 3.55 2.73 2.01 1.65 0.98 0.59
4	Sankheda ..	1. Congress .. 2. Congress (O) .. 3. Swatantra .. 4. Independent .. 5. Independent ..	45,564	26,884 8,532 903 8,754 491	59.20 18.73 1.98 19.21 1.08
5	Dabhoi ..	1. Congress .. 2. Congress (O) .. 3. Jana Sangh .. 4. Independent ..	42,890	22,511 14,274 5,246 859	52.48 33.28 12.23 2.01

STATEMENT XVIII-6—contd.

Sl. No.	Name of the constituency	Party affiliation of the contesting candidates	Total valid votes polled	Number of valid votes polled by each candidate	Percentage to total votes polled
1	2	3	4	5	6
6	Vaghodia ..	1. Congress .. 2. Congress (O) .. 3. Independent .. 4. Independent ..	43,382	15,683 4,821 22,579 299	36.15 11.11 52.05 0.69
7	Savli ..	1. Congress .. 2. Socialist .. 3. Congress (O) .. 4. Independent ..	45,231	26,240 11,852 6,042 1,097	58.01 26.20 13.36 2.43
8	Vadodara City	1. Congress .. 2. Jana Sangh .. 3. S. S. P. .. 4. Swatantra .. 5. Socialist .. 6. Independent .. 7. Independent ..	41,913	20,480 14,388 6,144 494 105 172 130	48.86 34.33 14.66 1.18 0.25 0.41 0.31
9	Raopura ..	1. Congress .. 2. Congress (O) .. 3. Socialist .. 4. Independent .. 5. Independent ..	40,808	32,474 7,421 512 266 135	79.58 18.19 1.25 0.65 0.33
10	Sayajiganj ..	1. Congress .. 2. Jana Sangh .. 3. Congress (O) .. 4. Swatantra .. 5. Communist .. 6. Independent ..	50,044	28,292 15,329 4,588 721 717 397	56.55 30.62 9.17 1.44 1.43 0.79
11	Vadodara Rural	1. Congress .. 2. Congress (O) .. 3. Independent .. 4. Independent ..	50,235	29,123 18,693 1,894 525	57.97 37.21 3.77 1.05
12	Padra ..	1. Congress .. 2. Congress (O) .. 3. Jana Sangh .. 4. Socialist .. 5. Independent ..	51,616	21,373 15,477 12,994 1,091 681	41.41 29.98 25.17 2.11 1.33
13	Karjan (SC)	1. Congress .. 2. Congress (O) .. 3. Jana Sangh .. 4. Independent ..	41,859	22,224 14,215 4,087 1,333	53.09 33.96 9.77 3.18

Source :
Collector, Vadodara District, Vadodara.

STATEMENT XVIII-7

Votes polled in the General Elections 1952 to 1972

Election Year	Total number of electors	Total votes polled	Percentage of column 3 to 2	Total valid votes polled	Percentage of column 5 to 2	Name of the parties	Votes polled by parties	Percentage to total valid votes polled
1	2	3	4	5	6	7	8	9
THE HOUSE OF THE PEOPLE (LOK SABHA)								
1952	.. 11,22,523	..	..	5,19,593	46.29	1. Congress 2. Socialist 3. Krishnar Lok Party	2,91,891 1,71,789 54,494	38.86 33.06 10.49
1957	.. 3,73,878	..	..	2,39,276	64.00	4. Independent 1. Congress	91,419 1,51,461	17.59 63.29
1962	.. 4,46,026	2,73,308	61.28	2,59,393	58.16	2. Independent 1. Congress	87,815 1,89,562	36.70 73.98
1967	.. 9,05,870	6,11,345	67.49	5,30,564	64.09	2. Independent 1. Congress	69,831 2,90,639	26.92 49.65
1971	.. 9,61,286	..	..	5,72,270	59.53	2. Swatantra 3. Independent 1. Congress (O)	2,84,767 5,558 3,93,456	49.65 1.00 53.04
1972	.. 5,34,145 (Electors) (6,53,436)* Votes	..	..	2,66,084	40.72	2. Congress (R) 3. Bhartiya Kisan Dal 4. Independent	2,91,197 2,944 4,643	45.64 0.51 0.81
THE LEGISLATIVE ASSEMBLY (VIDHAN SABHA)								
1957	.. 6,12,207 (Electors) (8,46,564)* Votes	..	..	4,80,023	56.70	1. Congress 2. Jana Sangh 3. Ram Rajya Parishad 4. Independent	1,39,205 3,619 997 1,84,326	52.32 0.75 0.21 38.40
1962	.. 7,36,679	4,46,260	60.53	4,10,160	55.68	1. Congress 2. Swatantra 3. Praja Socialist Party 4. Natan Gujarat 5. Jana Sangh 6. Ram Rajya Parishad 7. Republican 8. Socialist 9. Independent	2,10,250 1,21,414 29,078 17,065 6,651 862 693 300 23,847	51.26 29.60 7.09 4.16 1.62 0.21 0.17 0.08 5.81
1967	.. 8,23,035	5,35,766	65.10	4,96,703	60.35	1. Congress 2. Swatantra 3. Praja Socialist Party 4. Independent	2,33,551 1,93,223 29,774 39,835	47.08 38.90 5.99 8.03
1972	.. 9,52,361	..	..	5,42,259	56.94	1. Congress 2. Congress (O) 3. Jana Sangh 4. Socialist 5. SSP 6. Communist 7. Swatantra 8. Independent	2,84,926 1,26,268 54,093 13,560 6,144 3,654 3,554 47,050	53.10 23.28 9.98 2.50 1.13 0.67 0.66 8.68

*In the General Elections of 1952 and 1957 the district had two double-member constituencies. The first figure shows number of electors while the second one shows the number of votes cast by them. The percentages in column 6 are worked out in relation to total votes cast.

Source :

1. Reports on the General Elections, 1951-52, 1957, 1962 and 1967, Election Commission, Government of India.
2. 1971 and 1972 General Elections, Collector, Vadodara District.

NEWSPAPERS

Two Gujarati dailies are published from Vadodara, viz., the *Lok Satta* and the *Sandesh*. The former is published since 1951 and has an average daily circulation of about 30,000 copies. The latter has been recently started as a local edition of the Ahmadabad paper. The Gujarati weeklies published from the district are 13 in number. Moreover, there are 7 fortnightlies, 20 monthlies, 2 two-monthlies, and 2 six-monthlies (half yearly) published from the district. Most of these are published from the Vadodara city.

The Gujarati dailies published from Ahmadabad are widely read in the district. As regards the English newspapers, the *Times of India* and the *Indian Express* from Ahmadabad are popular among the English knowing people.

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

The Vadodara district can boast of being one of the foremost districts in the field of voluntary social service organisations. The innate urge of the people to organise voluntary social service institutions was found in this district as early as the last century. The oldest existing voluntary institution in this district was established in the year 1883. It is Shri Narayan Guru Adya Vyayam Shala which was established by Shri Gajanand Trimbak Titak. Many such institutions were thereafter started. They mainly worked in the field of physical education. The Purani brothers established another Vyayam Mandir in the year 1908. In fact, they devoted their life in organising gymnastic activities on a sound footing. The Baroda State often encouraged many such organisations by granting them free land. Vadodara was fortunate in having a band of social workers who gave selfless service to organise such institutions on a voluntary basis. The people of Vadodara also took active interest in such activities which inspired the social workers to work in this field with greater enthusiasm.

However, such activities in the past were mostly confined to a limited sphere of activities in social life. It was only after Independence that voluntary institutions of various types were established in the district. In fact, the phenomenon of voluntary social service is closely associated with the democratic form of Government which promises equal status and opportunities to all sections of the society like women, children, the illiterate, the disabled and the backward strata of society. Social activities for their welfare have been attracting increasing attention of the State and the people. Simultaneously, there has been a growing consciousness among such classes to organise themselves and to improve their lot.

Among the important institutions established after Independence may be mentioned the Baroda Citizens Council, the Anand Niketan Ashram, Rangpur, the Samagra Gram Seva Mandal, Rajpura, etc.

An account of the important institutions in the district, given in the following paragraphs would indicate the richness of the institutional life in the district.

The Anand Niketan Ashram, Rangpur (Kavant)—(Chhota-Udepur Taluka)

The Anand Niketan Ashram was established in the year 1949 near village Rangpur. The Ashram started its activities with adult literacy centres. Within a period of few years, the Ashram grew into a huge organisation and became popular in Gujarat. The Ashram provides the infrastructure of development in this part of the district. It organises such constructive activities like digging of wells, charkha spinning, formation of weavers co-operatives, etc., besides opening adult literacy classes. The most important activity of this Ashram, however, is what is popularly known as the Lok Adalat or People's Court, where the problems of the people are discussed and solved. The Lok-Adalat or People's Court is the unique of its type. It has settled more than 20,000 cases, so far, involving domestic and social problems. The Ashram had organised Gram-dan movement. By 1969, about 185 villages of Nasvadi taluka were obtained in this movement. The total number of Gram-dan villages stood at 353 by the end of 1969.

The Ashram also runs Jivan Shala, a residential school with 60 Adivasi children. The school teaches upto VIIIth standard. The students are not charged any fees and their expenses, including those on food and clothing, books and tools are borne by the Ashram for which the students are required to perform 3 hours of labour each day on the farm. In addition to this, the Ashram runs 3 nursery schools and 4 primary schools in this area.

The Baroda Amateurs Dramatic Club, Vadodara

The Baroda Amateurs Dramatic Club is an important institution in the district. It was established in the year 1955 as a regular organisation. The main activity of this institution is to organise drama competitions and to train the amateur artists. It has won several prizes in the drama competitions. In 1974, the club had organised an All-India Dramatics Conference at Vadodara.

The Baroda Citizens Council, Vadodara

The Baroda Citizens Council, an important social service institution in the district, was established in the year 1966 with efforts of the prominent social workers of Vadodara. Within a short period of eight years of its existence it has done a very useful service to the citizens of Vadodara in various fields of activities.

Organising people, encouraging them for collective and co-operative actions, reactivising local social organisations, dissemination of correct and timely information, creating community feelings, building up atmosphere of harmony and integration and making people self-reliant are the guiding principles adopted by the council in working with people. In the various activities and programmes of the Citizens Council, community work has played an important role by securing public participation and co-operation.

The Council has given the highest priority to economic activities especially those calculated to generate employment and income for low income families. A new service-Employment and Training Referral Service, was started in 1970. Four garment making centres were started in order to provide employment and income to needy women on part-time basis. The centres produced goods worth Rs. 17,000 in 1972.

It runs a unit of 5 Ambar Charkhas in the city. The Council runs another unit with 17 Ambar Charkhas at the Leprosy Colony where leprosy patients are provided with work.

The Council conducts youth activities oriented to lay special emphasis on employment and training programmes especially for those belonging to backward communities. Women are given intensive training for preparing garments, kites, etc., Several women trained in the applied nutrition programme of the council have started independent catering contracts.

The Council workers have received enthusiastic response in regard to several health projects especially immunisation programmes. The workers educate the local people through film-shows, group discussions, distribution of literature and house to house contacts. A total of 93 film shows were held during the year 1972 in which health films were exhibited. The film-shows were witnessed by about one lakh persons. As regards family planning programme, motivator camps are organised by the community workers in the areas.

The educational projects undertaken by the council include enrolment drive for non-school going children, adult literacy classes, etc. The local communities took initiative in organising themselves for survey of non-school going children and contacted parents for persuading them to sent their children to schools.

The Baroda Citizens Council considered leprosy control as an important activity. To promote, guide and extend this noble humanitarian work, a Leprosy Advisory Committee at the city level was formed by the Council.

The Council prepared detailed programme for leprosy control, which included health education, survey, medical check-up, clinical services, and rehabilitation. Leprosy patients when relieved from hospitals get assistance from the Council in persuading their family members to accept them.

The Baroda Citizens Council has formed youth and volunteer services committee to guide and promote youth and volunteer service programme. The committee consists of the representatives from various youth agencies, national service scheme, students unions and leading volunteers.

The Lokseva Mandal, Lamdapura (Savli Taluka)

The Lok Seva Mandal was established at village Lamdapura, in 1965 with a view to promoting general welfare of the village people. For the purpose it conducts several educational, cultural, social and economic activities. It runs the Lok Vidyalyaya, the Sarvodaya Vidyarthi Grih for boys and the Geeta Kanya Chhatralaya for girls. It runs a Balwadi for the Adivasi children at Alindra (Savli taluka) and a Khadi Bhandar at Bautha (Savli taluka). The Mandal organises relief measures at the time of natural calamities like flood, famine, etc. and arranges educational tours for children. It provides employment to agricultural labourers and helps Adivasi and poor farmers for construction of houses, etc. It also helps solve their social problems.

The Samagra Gram Seva Mandal, Rajpura (Savli Taluka)

The Samagra Gram Seva Mandal was established in 1961 with a view to promoting educational, cultural, social and economic welfare of the villagers. The Mandal conducts the Sarvodaya Vinaya Mandir which provides basic education to about 200 students, the Sarvodaya Vidyarthi Ashram which accommodates about 50 students, Shri Bharati Kanya Chhatralaya which provides education to 30 women and the Premal Ashram Shala which provides cultural and social education to the Adivasi people. The Mandal also conducts an agriculture research centre. It utilises land for cultivation, applying modern techniques of farming. It also provides employment to its students to make them selfdependent. The Mandal organises educational tours, cultural programmes, drama competitions, etc. It runs a *gaushala*, an Ayurvedic dispensary and a Hindi Prachar Kendra. The Mandal has also constructed a Housing Society for Harijans.

The Vadodara Jilla Pachhat-varga Seva Mandal, Vadodara

The Seva Mandal was established in 1955 with a view to ameliorating the condition of the Backward Classes in the district. For this purpose, it

conducts educational, cultural, social and economic activities. It runs 7 Kanya Chhatralayas, primary schools and hostels in the interior parts of the district where educational facilities for the Backward Classes are inadequate. It conducts Teachers' Training College for women at Chhota Udepur. It also conducts an Uttar-Buniyadi Ashramshala with agriculture which provides educational facilities to about 160 students every year. To provide educational facilities to women, the Mandal has started a Kanya Vidyalaya at Chhota Udepur and Sarvajanic Vidyalaya at Khatiyavant in Chhota Udepur taluka.

At present the Mandal runs 70 institutions comprising 33 Chhatralayas, 12 Ashramshalas, 4 primary schools, 2 secondary schools, a training school, a Kanyashala, 17 Balwadis, etc. About 5000 students take benefit of these institutions.

The Vadodara Jilla Samaj Kalyan Mandal, Vadodara

The Vadodara Jilla Samaj Kalyan Mandal was started in the year 1961 to promote activities for the welfare of women and children at village level. The Mandal runs Mahila Mandals and Balwadis at about 24 centres in the district. For the social and educational uplift of children, study-tours, excursions, games competitions, etc., are arranged at these centres. Moreover, classes in sewing, child-health, etc., are conducted for the benefit of the women members.

Mahila Mandals

One of the important institutions of women's welfare in the district is the Arya Kanya Maha Vidyalaya. It was founded in the year 1925 in the village Itola, about 25 km. from Vadodara. The institution was shifted to Vadodara city in the year 1929. Within a few years it flourished into a well-known institution with 400 girl inmates. It has two spacious hostels and a separate school building with a vast play ground. The institution which maintains its own hostel conducts classes in physical, culture, fine arts, religion, etc. The institution is run by the Aryakumar Maha Sabha, a registered body under the Bombay Registration Act of 1860 and the Bombay Public Trust Act of 1950.

The Kareli Bag Bhagini Samaj is another important institution of women's welfare. It was established at Vadodara in 1971. It conducts varied activities for the educational, cultural, social and economic uplift of women. It runs a sewing class and an embroidery class which have imparted training to about 300 women. The Samaj runs a charitable dispensary and a family planning centre. It also organises child health competitions, blood donation camps, game competitions, *garba* and elocution competitions, etc.

The other important Mahila Mandals in the district are the Mahila Samaj at Chandod (Dabhoi Taluka) established in 1958, Shri Virangana Laxmibai Mandal at Avakhal (Sinor Taluka) established in 1973, Shri Navrang Mahila Mandal at Makarpura (Vadodara Taluka) established in 1962, and Shri Geeta Mahila Mandal at Vadodara established in 1957.

These institutions organise cultural and educational activities for the welfare of women in general.

Gymnasiums

The district is known for gymnasiums. In fact, it has the largest number of gymnasiums in Gujarat, some of which are functioning for the last 50 to 90 years. The seeds of gymnastic activities were sown during the last century in the wake of national movement which had pervaded the whole country. A band of youths fired with the spirit of nationalism were inspired to found gymnasiums and to cultivate physical development of the younger generation and instil in them, the spirit of fighting against the alien government. To them, no sacrifice was great for the liberation of the country from the British yoke. They were prepared to sacrifice even their lives for the country. For building up a strong physique they chalked out a programme of activities that would not only develop the physique but would also make the younger generation bold and buoyant so that they could stand up against any hardship. They, therefore, started activities, comprising traditional physical exercises of *dand-bethak*, wrestling, running, etc.

Fortunately, the district of Vadodara had leaders in this field like Shri Narayanguru Deodhar, Shri Gajanand Trimbak Tilak, Jumma Dada, Prof. Manekrao, Shri Vasantao Captan, Shri Chhotubhai Purani and his brother Shri Ambubhai Purani, etc. Shri Tilak started what is now known as Shri Narayan Guru Adya Vyayam Shala in the year 1883. It was the first Hindu Vyayamshala established in the district. The Purani brothers established Shri Laxminath Vyayam Mandir in the year 1908. These two institutions are the oldest and most popular ones, still doing useful service for the people of Vadodara. To instil into the younger generation, the spirit of nationalism, the organisers of these gymnasiums also arrange group discussions regarding the literature of Swami Vivekanand, Swami Ramtirth, Mahatma Gandhi, Ravindranath Tagor, Shri Arvind Ghosh, etc. They have won several prizes in many game competitions.

Other institutions of considerable importance in this field are the Gujarat Krida Mandal established by Shri Vasantao Captan and Shri Jumma Dada Vyayam Mandir established in the early thirties. Shri Gujarat Krida Mandal, which is better organised, has a membership of about 500, mainly comprising teen-aged boys and girls. It organises competitions in Indian and western games. It has earned championships in All India games competitions.

Besides these, there are several other Vyayamshalas. Among them, mention must be made of the Jyoti Vyayam Mandal and the Madhyastha Ramat Kendra, both situated in the city of Vadodara. The former was established in 1935. It is meant exclusively for ladies. The latter, established in 1961, has won several championships in the All India Kho-Kho Competitions.

Over and above these institutions there are a large number of other organisations working in various parts of the district. They are mainly connected with activities of youth and women's welfare. Most of them are working at the village level. Moreover, there are several institutions in this district which are mainly working in the field of education. As such, they are described in the chapter on 'Education and Culture'. Besides, there are branches of some institutions like the Rotary Club, the Lions Club, the Red Cross Society, the All India Women's Council, etc., which are working at State level but which maintain their branches in this district. Their aims, objectives and activities are too well-known and, therefore, do not need any elaboration here.

CHAPTER XIX

PLACES OF INTEREST

INTRODUCTORY

The Vadodara district has several places of interest and importance. The city of Baroda or Vadodara had remained the capital of the Gaekwads for many years prior to Independence. It is the third biggest city of Gujarat and perhaps the finest among all. It is the most important educational and industrial centre of the district. Dabhoi which was once the capital of the Solanki rulers has fine archaeological remains of great antiquity including the famous Hira Bhagol. Chhota Udepur was the capital of the former princely State. Among the religious places are Ambali, Chandod, Karnali and Karvan. Sankheda is known for its beautiful handicrafts and wooden furniture. Padra, Savli, Vaghodia and Tilakwada are important commercial centres. Bodeli, Dabhoi and Karjan are important centres of cotton ginning and pressing. Fertilizernagar and Jawaharnagar are the two new townships formed in the wake of establishment of the Gujarat Fertilizers and the Gujarat Oil Refinery, respectively.

The following is the list of places of interest arranged talukawise.

Chhota Udepur Taluka

1. Kavant
2. Chhota Udepur
3. Hanf
4. Mohan or Ali Mohan
5. Rangpur

Dabhoi Taluka

1. Bhilapur
2. Chandod
3. Dabhoi
4. Karnali
5. Karvan
6. Mandva
7. Nandigram-Nanderiya
8. Sathod
9. Ten-Talav
10. Vadhvana

Jabugam Taluka

1. Jabugam
2. Pani
3. Rajwasna

Karjan Taluka

1. Karjan
2. Moti Koral
3. Nareshwar (Lilod)

Nasvadi Taluka

1. Nasvadi
2. Pala
3. Tankhala

Sankheda Taluka

1. Bahadarpur
2. Bodeli
3. Chhuchhapura
4. Jojwa
5. Kosindra
6. Mankani
7. Sankheda
8. Songir

Sinor Taluka

1. Ambali
2. Barkal
3. Dariapura
4. Kanjetha
5. Kukas
6. Malsar
7. Sinor
8. Timbarva

Vadodara Taluka

1. Anagadh
2. Atladara
3. Bajva
4. Fertilizernagar
5. Harni
6. Jawaharnagar
7. Makarpura
8. Por
9. Sevasi
10. Vadodara or Baroda City
11. Varnama

These places are described below, alphabetically.

Padra Taluka

1. Bhoj
2. Dabka
3. Ekalbara
4. Ghayaj
5. Padra
6. Ranu
7. Sadhi

Savli Taluka

1. Bhadarva
2. Muval
3. Sandhasal
4. Savli
5. Tundav

Tilakwada Mahal

1. Kukrej
2. Tilakwada

Vaghodia Taluka

1. Ajawa
2. Jarod
3. Nimetha
4. Shriportimbi
5. Vaghodia

Ajawa—Vaghodia Taluka

Ajawa is not a revenue village but a railway station on the Dabhoi-Timba narrow gauge section of the Western Railway at a distance of 12 km., from Vaghodia and 20 km., from the Vadodara City. Near this railway station, there is a big and beautiful lake known as Ajawa Sarovar. It is named as Sayaji Sarovar after the late ruler Sayajirao Gaekwad. This lake supplies the water requirements of the Vadodara City. It is a picnic place with a guest house developed by the City Municipality.

Ambali—Sinor Taluka (P. 663)*

Ambali is a small village situated at a distance of 4 km., from Sinor which is a railway station on the Chandod-Malsar narrow gauge section of the Western Railway. There is a shrine dedicated to goddess Ansuya, wife of sage Atri and the mother of Dattatraya, the incarnation of Brahma, Vishnu, and Mahesh (Shiva). It is believed that if lepers apply to their sores the mud of the temple wall or water in which the goddess is bathed their malady is assuaged, if not entirely cured. Shri Malharao Gaekwad was said to have been cured of leucoderma by the magic effects of this water. He therefore constructed the present shrine of goddess Ansuya. There was a leper asylum here but it was later shifted to Vadodara City. The Ansuya Mata fair with a congregation of about 1,000 people is held here on Chaitra Sud 15. Ambali has a primary school and a post office.

Anagadh—Vadodara Taluka (P. 1,154)

Anagadh is an ancient village on the bank of the river Mahi about 10 km., from Vadodara. People of Anagadh had actively participated in the freedom struggle of 1857. The *Bombay Gazetteer* referring to them had stated : "The Angadh kolis are notorious thieves. During the mutiny (1857-1859) time, they gave such trouble that their village was moved to a more open part of the country."†

Ancient sculptures are found from the ravines near the village. Among them are the idol of Mahishasur Mardini, a tomb-stone dated Samvat 1391 and the idols of Ganesh and Parvati in the ancient temple of Dhumareshwar Mahadev on the bank of the river. Anagadh has a primary school and a post office.

ABBREVIATIONS :

* P.=Population; N. P.=Nagar Panchayat; Mu.=Municipality; N=North Latitude; E=East Longitude;

1. *Gazetteer of the Bombay Presidency*, Vol. VI, (1880), p. 50.

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CHAPTER XIX -- PLACES OF INTEREST

Bajva Vadodara Taluka (P. 4.436); 22° 22' N. 73° 08' E.

Bajva has a secondary school, a hostel, a Kanya Vidyalaya managed by the Vakal Kelvani Mandal, a public dispensary and a post and telegraph office. There are branches of State Bank of India and Union Bank of India.

Barkal is situated on the bank of the river Narmada, 7 km., from the south-east corner of the Sinor taluka. The State Transport buses ply here during fair season. The popular belief is that it was at Barkal that Bhim, one of the five Pandav brothers, killed the demon Bakasur and hence the name Barkal. The island in the Narmada, known as the *Vyas Bet* (Vyas island), on which sage Vyas, saint author of Shrimad Bhagvat carried out his penance is in the vicinity. There is a temple dedicated to Vyas Muni. A fair is held here on Chaitri Purnima. Barkal has a primary school and a post office.

Bhadarva is 19 km. from Vadodara, the district headquarters. It was a small princely State before Independence and the ruler of the State enjoyed the rank of a IV class chief. Bhadarva has several old buildings with the rank of a IV class chief. Bhadarva has several old buildings with exquisite wood carvings. Two or three buildings have wall paintings with coloured pictures of Radha and Krishna, Rama and Sita, Laxmiji, Bahucharaji, etc. and depict events from the Pauranic stories. There are also pictures of the army marching on foot and on horse back, procession of a king seated on an elephant, a king seated with his queen and an European officer with his wife, etc. These paintings probably belong to the last decade of the 19th century and as such reflect the types of dresses and ornaments used during those days. The style of painting shows the Maharastrian influence. The wall paintings in an old building which now houses the office of the Gram Panchayat depict pictures of Shri Krishna and his Ras

Bahadarpur is a neolithic site and to the north of the town in alluvial basin of the Orsang river, relics of neolithic age such as common flakes, pygmy flakes, cores of agate, chalcedony, etc., are found. Bahadarpur is a railway station on the Chhota-Udepur-Jambusar narrow gauge section of the Western Railway. It is situated on the bank of the Orsang river.

According to the *Mirat-e-Ahmadi*, Bahadarpur was one of the four administrative divisions, i. e., *paragana* of the Baroda State Government. The Bahadarpur Paragana had 27 villages under its jurisdiction.¹

In 1883, it was recorded in the Gazetteer of the Bombay Presidency, Vol. VII (P. 557), "As in Sankheda, the Calico printing and dyeing are considered good, and there is some trade in the produce of the *Mahuda* tree. The brown walls of Bahadarpur look across the wide expanse at the battlements of the Sankheda fort which are in sufficiently good preservation to make quite an imposing appearance". The business in dyeing and printing is now on decline. On account of good cotton crop there are two cotton ginning and one pressing factories. Besides there are two rice mills, two saw mills and one furniture making unit. Shoe making has developed as an important cottage industry in the village. There are a seed multiplication farm and an oil mill in Bahadarpur. The town has three primary schools, a secondary school, a Kanya *chhatralaya* for Backward Classes, a health centre, a family planning centre, a library and an agricultural school with *gaushala*. The places of public worship included the old temple of Khodiyar

1. Majumdar Chandramauli's article in the Souvenir of the Sankheda Sarvajanik Education Trust (1972) p. 11.

Leela, Shri Rama, Goddess Ambaji, Bahucharaji, etc. and scenes from the *Ramayan* and the *Mahabharat*.

At a short distance to the west of the village on the bank of the river Mahi, there is an ancient temple of Rusheshwar Mahadev with more than 20 small shrines round about. The Temple of Rusheshwar is so called because it was originally established by Rushis (sages) staying here. The temple itself is simple in construction but two or three of the shrines which are believed to be Samadhis of the Gonsaijis staying in the Maths which were originally established here, contain some very beautiful wall-paintings. These paintings are better in quality and design than those at Bhadarva. The pictures here include scenes from the Shiva Puran and other Pauranic stories. There are also pictures of Krishna Leela, peacocks, chariots, etc. Most of the pictures are drawn with thin black and red boundaries and specak well of the artistic skill of the painter. The style of painting is one prevalent during the 19th century and reflects the progress of the painting art in Gujarat during those years. Two stone inscriptions on a temple wall show years 1812 and 1827 as the dates of their construction.¹ Old coins belonging to the Muslim period have been found from nearby areas.

Bhadarva has a Balmandir, two primary schools, a secondary school, a maternity home, a health centre, and a dispensary, besides a post office. The village is electrified and has water works. There are branches of Central Bank and the Vadodara District Central Co-operative Bank.

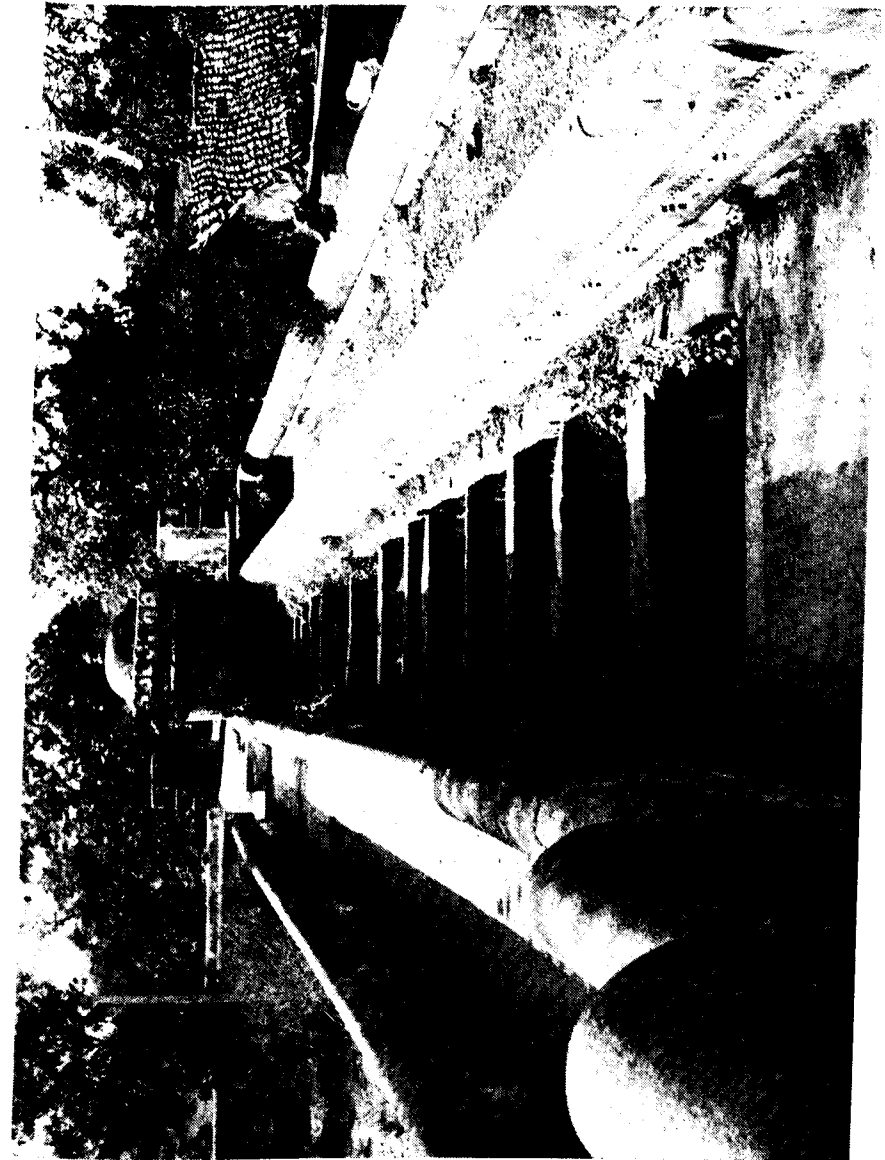
Bhilapur—Dabhoi Taluka (P. 1,568)

Bhilapur is a railway station between Vadodara and Dabhoi on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway. It is on the bank of the river Dhadhar. The confluence of the rivers Dhadhar and Dev is at a distance of about two km., from here. The State Transport buses connect it with Vadodara and Dabhoi.

In 1731, a battle known as the battle of Bhilapur was fought here between the army of the Peshwa and that of the Gaekwad. The Peshwa's men though fewer in number were much more efficient in the field than the enemy. Trimbakrao Dabhade was slain and Pilaji Gaekwad was grievously wounded on the battle-field. Sayaji, the eldest son of Pilaji, was also killed and the army of the Gaekwad and his allies were made to run. It was in Bhilapur that in 1775 A. D., the Maratha forces were stationed while Colonel Keating took refuge in Dabhoi.

There are two temples dedicated to Lord Shiva. Of these, the Gaurishankar Mahadev temple was built by Khanderao Gaekwad to facilitate performance of Puja by his mother. This village, it is said, was given for maintenance to

1. Article by Ramsinhii Rathod and Khodidas Parmar in '*Kumar*' of June, 1970.



Bhoj Vav in Padra taluka

Khanderao's mother. The temple has idols of Sun, Vishnu and Parvati. Of these the idols of Sun and Parvati appear to be old. The dome has wall paintings depicting scenes from the *Ramayana* and *Mahabharat*. The temple of Dhumeswar, situated on the banks of the Dhadhar river appears to have been renovated frequently. The Shiva-ling is old. There is an idol of Parvati (Uma) in the temple. The village has a *dargah* of Bala Pir. Two old memorial stones (*paliyas*) are seen near the *dargah*. Bhilapur has a primary school, a dispensary, a veterinary dispensary and a post office. There is a factory for the manufacture of pesticides.

Bhoj—Padra Taluka (P. 4,520)

Bhoj is 12 km., from Padra, the taluka headquarters and is connected by the State Transport bus service. The village has an old step-well in good condition with an inscription, dated Samvat 1557 or Shak 1420. Besides, there is an old temple of Nilkantheshwar Mahadev. The village has a primary school and a post office.

Bodeli—Sankheda Taluka (P. 6,229); 22° 16' N. 73° 43' E.

Bodeli is a neolithic site of considerable importance on the Orsang river where agate cores and glassy white quartz are found. It is a railway station on the Jambusar-Chhota Udepur narrow gauge section of the Western Railway. It is situated on the bank of the river Orsang at a distance of 20 km., from Sankheda, the taluka headquarters. It is an important State Transport junction connected by buses with Godhra, Vadodara, Dabhoi, Sankheda and other places in the State and also with Indore and Ali-Rajpur of the Madhya Pradesh.

Bodeli is the biggest trading centre in the Sankheda taluka. It is also an industrial centre with four ginning factories, a rice and pulse mill and two oil mills. Besides, there are 11 cement pipe factories, 7 saw mills, an optical wire manufacturing factory, four steel works, eight electric welding works, two flouring tiles factories, three ice factories, three sugar candy factories, two beedi works, two printing presses, one steel rolling mill, a fire works' factory, etc. An industrial estate is soon to be set up here.

Among places of public worship may be mentioned a Rama-temple, a Kabir temple, a Satya-narayan temple, a Shiva temple, a Jain temple and a Muslim mosque. Bodeli has a public hospital with a maternity home, a Bal Mandir, two primary schools, a secondary school, a library, and an arts college. There are branches of (1) State Bank of India, (2) Bank of Baroda, (3) Central Bank of India, (4) the Urban Co-operative Bank, and (5) the Baroda Central Co-operative Bank. It has post, telegraph and telephone facilities. The village is electrified and has water works. There is a rest-house maintained by the P. W. D.

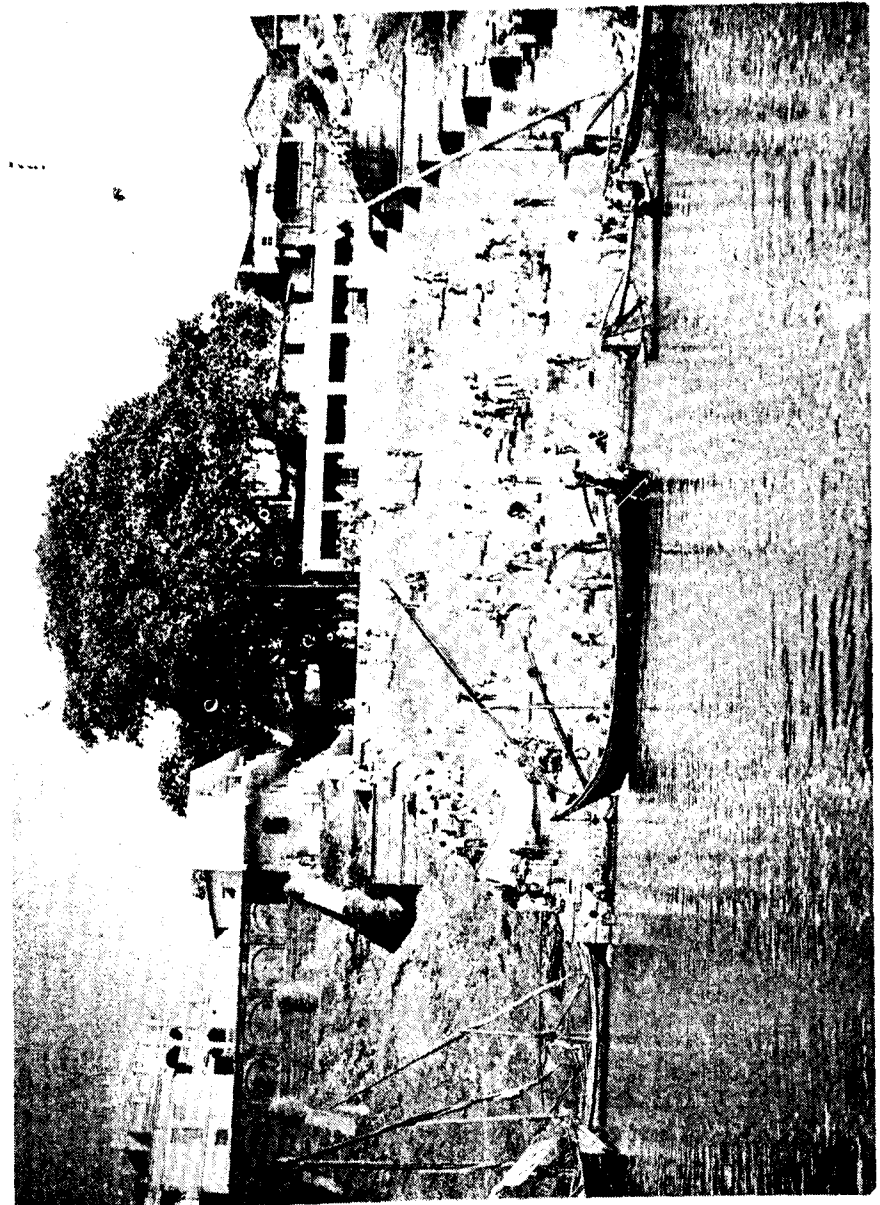
The present Bodeli is a newly settled place developed by the Gaekwads as a trading centre after the railway lines were laid here. It was so developed because of its geographical importance as a place on the borders of the former princely States of Jambughoda, Chhota Udepur and Vadodara. The original Bodeli is now a hamlet nearby, with population of Kolis and Rajputs, who are mainly agriculturists.

Chandod—Dabhoi Taluka (P. 3,267) : 21° 59' N., 73° 27' E.

Chandod is a railway station on the Chandod-Malsar narrow gauge section of the Western Railway, just below the spot where the river Orsang joins the Narmada. It is 21 km. south of Dabhoi and is a place of great sanctity. At Chandod, the river Narmada makes a graceful bend, while the lofty bank on which Chandod is built ends boldly at the *sangam* (confluence) where the two rivers meet. Its original name was Chandipur, which was later on called Chandod.

Between Chandod and Karnali there is what is known as *Dakshini Prayag* or *Triveni Sangam* of the rivers Orsang, Narmada and Gupta Saraswati. People come here for performing *Pitru Shradhha*. The chief temples are those of Kapileshwar Mahadev, Kashivishvanath Mahadev, Dameshwar Mahadev, Chandika Mata, etc. Other temples include those of Ramchandraji, Ranchhodraji, Verai Mata, Kubereshwar Mahadev, Kamleshwar Mahadev, Narmadeshwar Mahadev, Runmukteshwar Mahadev, Shesh Narayan, Swaminarayan, Balaji, Trikamji, Hanumanji, etc. There is also a Vaishnav *tirth* in the form of Mahaprabhuji's Bethak. Some of the temples at Chandod are said to be very old and interesting stories are told about them. It is said that the temple of Kapileshwar Mahadev is 1000 years old. There is a mention of Kapileshwar Mahadev in Reva Khand of the Skanda Purana. It is said that one Kapil Nag had performed penance at this spot. The temple has sixteen pillars and the dome contains battle scenes from *Ramayana* and *Mahabharat*. There are idols of Ganesh, Surya and Parvati in the small temples adjoining the Kapileshwar Mahadev temple. Another ancient temple of Shesh Narayana has an idol of the god in black marble. It is said that after killing demon Tilmegha, the deity took deep slumber in the waters of the Narmada and reappeared on the Gita-Jayanti day i. e. Margashirsha Sud 11. It is said that one of the *Subas* of Gaekwad at Sankheda, Govindrao Gaekwad, built this temple in about 1775 A. D.

The Kashivishwanath Mahadev temple was built by Kashinath Gaekwad, and that of Dameshwar Mahadev was built by Damajirao Gaekwad-II. There are two pathshalas, out of which one run by Jambu Brahmins has about 40 pupils who study *karmakunda*, etc. The Chandika Mata temple also called Chandaditya tirth has in the compound an idol of Sun, seated in a chariot drawn by seven horses. This idol is found opposite the temple of Lord Shiva.



Malhar Rao Ghat on the river Narmada, Chandod

The Trikamji temple has an idol of lord Trikamji, a form of Vishnu. The idol has four hands and carries *chakra*, *shankha* (conch), *gada* (mace) and lotus. It is said that national leaders took refuge in this temple during the freedom struggle. The temple of Balaji on the Chakrapani Ghat contains a monastery known as Shrivatsa. The temple of Kuberswar Mahadev was built by a *Yaksha* named Kuber. People worship this deity for his blessings for progeny. There is another temple of Harsiddhi Mata at Chandod.

Chandod was reputed in the past as a centre of learning. Even at present there are several learned Brahmins well-versed in Ghanpath of the Shukla Yajurved.

It is said that in the past the village was administered by the Brahmins. The historical *ghat* known as Malharrao Ghat constructed on the bank of the river Narmada is nearly a hundred years old. There are six *ghats* on the river. They are known as Malharrao Ghat, Chakrapani Ghat, Yama Ghat, Harijan Ghat, Kapileshwar Ghat and Swami Ghat.

A fair with a congregation of about 30,000 persons is held on *Chaitri Punam* (*Chaitra Sud 15*) when people bathe in the holy water of river Narmada. The place is served by a primary school, a high school, a post and telegraph office, a police station, a dispensary, a maternity home, a branch of the District Central Co-operative Bank and Dena Bank. The village has a rice mill and a flour mill. It is a trading centre for timber. The State Transport buses reach right upto the river bank on the opposite side for picking up passengers bound for Rajpipla which is about 10 to 12 km. from Chandod.

Chhota Udepur—Chhota Udepur Taluka (P. 14,312); N. P., 22° 18' N., 74° 01' E.

Chhota Udepur is the taluka headquarters and a railway station on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway. It is about 100 km., away from Vadodara, the district headquarters and is situated on the Chhota Udepur-Alirajpur-Vadodara State Highway. It was the capital of the former Chhota Udepur State.

The Chhota Udepur chiefs claimed to belong to the clan of Khichi Chohans whose chief, Anhal is said to have been created by Vashistha Muni out of one *Agni Kund* on the Mount Abu. Baji Raval founded Chhota Udepur but it was Rayasing who, in 1813, built the Udepur fort. It is said that the town is called Chhota Udepur because it is smaller than the Udepur in Rajasthan. There are historical old palaces, temples of Gangeshwar, Pancheshwar, Jagnath and Jabareshwar Mahadev, Kalika Mata, Ganapati, Swaminarayan and Gordhanathji, etc. Jagnath and Vagh-sthal are picnic spots. There is an old *dargah* also.

Being the capital of a former State, Chhota Udepur has facilities of good roads, electricity, water supply, hospital with a maternity ward and a health centre. The surrounding area has rich forests. There are several factories manufacturing dolomite used for marble making. This area has prospects of yielding mineral wealth like manganese.

There are two secondary schools, Arts and Science colleges, a Stree Adhyapan Mandir and a public library. The town has branches of Central Bank of India, State Bank of India and the District Central Co-operative Bank. Being the taluka headquarters, all taluka offices are situated here. It has a cinema house.

Chhuchhapura - Sankheda Taluka (P. 119)

Chhuchhapura is a railway station on the junction of the Chhota Udepur-Jambusar narrow gauge section and the Chhuchhapura-Tankhala narrow gauge section of the Western Railway. Attractive marble known as Motipura marble, green in colour is found here. On the death anniversary of Khvaja Jald Navaz (*Utavaliapir*), a Muslim saint, an *Urs* (fair) with a congregation of about 2,000 persons is held here. Chhuchhapura has a primary school, a co-operative society and a post office.

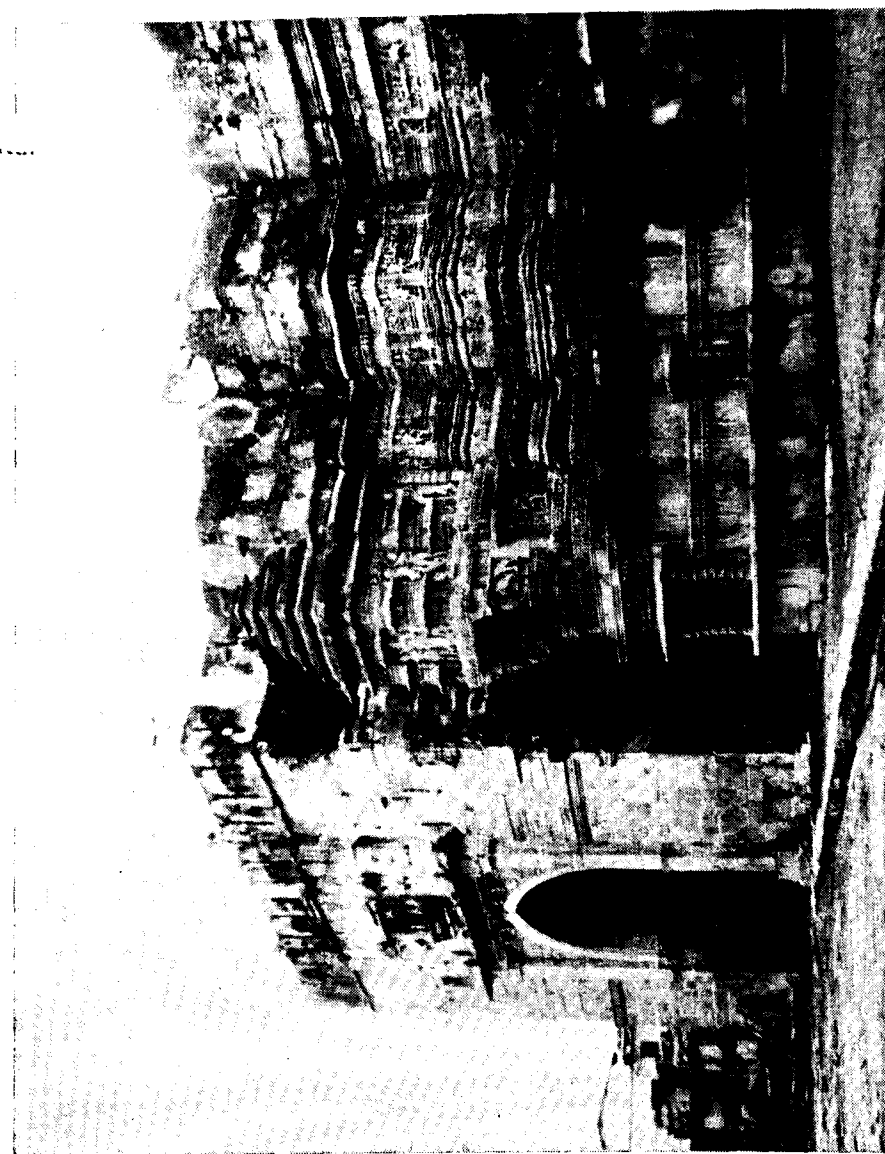
Dabhoi—Dabhoi Taluka (P. 37,892) ; Mu., 22° 08' N., 73° 25' E.

Dabhoi is an ancient town and was originally known as Darbhavati. It is 34 km., from Vadodara the district headquarters. It is an important railway station and junction of the following three narrow gauge sections of the Western Railway : (1) Chhota Udepur-Jambusar, (2) Chandod-Malsar and (3) Dabhoi-Timba Road.

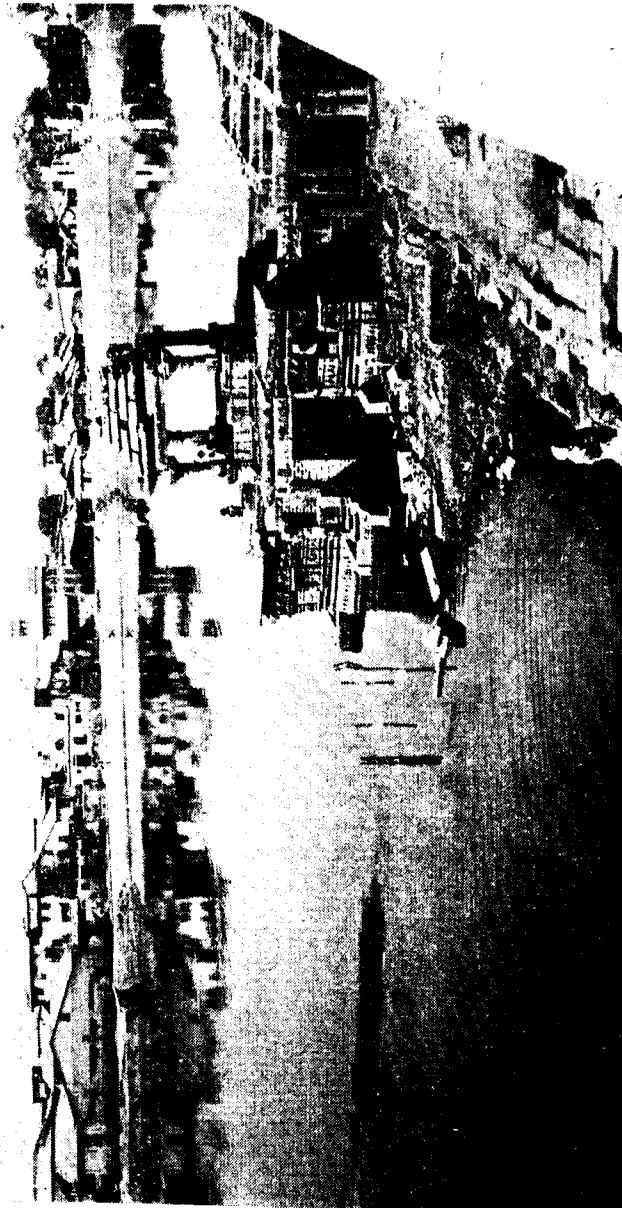
The town of Darbhavati is believed to have been established as early as sixth century A. D. The foundation of the fort of Dabhoi is ascribed to King Siddharaj of Patan who reigned from A. D. 1093 to 1142, during which period the town flourished greatly. The style of architecture of the fort as well as the elaborate richness of sculpture fully bear out the traditional belief that the temple of Rudramala at Sidhpur (Mahesana district), the forts of Zinzuvada and the forts of Darbhavati were built during the same time.¹ Siddharaj converted Darbhavati into a frontier fortress as a result of which it grew in importance. It is mentioned as one of the most important cities of Gujarat in the Girnar Jain inscriptoin of Vikram Samvat 1288. The construction of Shiva and Jain temples here by Vastupal added grace and beauty to this town. Soon after the fall of Patan in A. D. 1300, Darbhavati fell before the onrushing tide of the Muslim invasion and its temples were destroyed.²

1. A. S. ALTEKAR, *Ancient Towns and Cities*.

2. *Ibid.*



Hira Bhagol at Dabhoi



Saptamukhi Vav, Dabhoi

By the middle of the thirteenth century, the temple of Vaidyanath was erected at Darbhavati. The temple was constructed by the architect Devaditya.¹ At present no temple exists under this name at Dabhoi. But the name of the architect is found incised in the temple now known as Kalika Mata temple. A later inscription dated 1734 A. D. too, seems to refer to Kalika as the deity of the temples.² It is possible that the existing temple to the north of the Hiragate represents the old Vaidyanatha temple, and that in course of time the latter may have turned into the temple of Kalika Mata. However, it is also probable that the ruined shrine, on the southern side of the Hiragate represents the Vaidyanatha temple while the temple on the northern side may have belonged to Kalika Mata from the beginning. Tradition ascribes the erection of both these temples to king Viradhavala or Visaladeva. The appearance of the name of the architect of Vaidyanatha temple in the temple of Kalika Mata may corroborate this assumption.

The northern portion of the temple (which is at present known as Kalika Mata temple), however, is in a much better condition and the sculptures carved on it are interesting. The carving shows four string courses of different patterns. One of them, which is at the top, at once catches the eye of the spectator. The projecting frieze has three principal members, the lower one is carved with half rosettes, the second with *chakras*, and the third with a procession of elephants, men, camels, etc. There is a thin cornice above this string course. The portion above it is more richly carved, the surface being literally overlaid with ornaments. Four balcony windows spring out of this surface resting on richly carved brackets and provided with projecting and sloping roofs. Between the brackets supporting the sill of the window, there is carved in bold relief an elephant with his rider surrounded by horsemen. The temple has three storeys, the shrine proper being on the first floor. It is now reached by a flight of steps on the inner or city side. But these steps are later addition. The original entrance was probably from the stairs leading to the upper storey of the gateway. A large gate with old wooden doors, which is still preserved, marks the passage. The sculptures over the walls of the building are distributed in single figures, in pairs or in groups of three or more figures.

To the west of the Nageshwer tank is a small shrine built into the tank. Probably it was a Shiva temple. It is contemporaneous with the Kalika Mata temple. It consists of a central shrine with porches on the north and south. On the west side is a roomy balcony window and a seat overlooking the tank. The sculptured walls of exquisite beauty are now exposed.

1. *The Prasasti of Somesvara*, vv. 111-113: RD, p. 18.

2. *Ruins of Dabhoi*, p. 19, Inscription, V. 4.

In V. S. 1311 (A. D. 1265) Visaldev restored a Sun temple by the name Mulasthana, (perhaps at or near Dabhoi).¹

There are several Jain temples of architectural beauty. Among them mention must be made of (i) Rishabhadev Jay Tilak Prasad consisting of a group of three temples dedicated to Adishwar, Dharmanath and Chandra prabhu, (ii) Adinath Shraman Samadhi Stupa with foot-prints (चरणपादका) of Shri Adinathji, (iii) Jambuswami Jain Muktabai Agam Mandir, and (iv) Kalyan Jyot Aradhana Mandir, all renovated and rebuilt recently.

The historical fort of Dabhoi has four gates. The ramparts have mostly fallen down, but the remains of the principal gates are still left, which indicate the gate architecture and decoration of the period. According to Shri H. D. Sankalia² the present remains are of the time of the Vaghela King Visaldev (A. D. 1244-61). Visaldev is believed to have been born at Dabhoi and performed a *Yagna*. But the kings to build ramparts round Dabhoi were perhaps Jayasinh Siddharaj and his ancestors. According to the *Vastupala Charita* it was Tejapala, brother of Vastupala, and minister of the Vaghela ruler Viradhavala, who built the city walls in order to protect Dabhoi against the raids of wandering mountain tribes from the north-east and the south, and also from the future attacks of the neighbouring king of Godhra whom Tejapal had just then defeated. Of this fort, after a series of attacks by the Muslims and the Marathas, when Burgess visited it, only four principal gates were left. These, according to him, consisted of two gates each, one outer, at right-angles to the inner one, with an open court between. These double gates are placed in the middle of each face of the four sided city. Each gate has a special name given to it, according to the place it leads to, except the gate on the east which on account of its beautiful decoration is called Hira (Diamond) Gate.³ In the inner wall of this gate is inscribed the 'Darbhavati Prashasti' written in verse form by Raj Kavi Someshwar Dev, a contemporary of Vastupal. The inscription is now only partly readable. It indicates that the fort at Darbhavati must have been built by Viradhaval, of the Vaghela dynasty. To east of the Hira Gate, there is another inscription in Marathi believed to have been installed by Damajirao Gaekwad, son of Pilajirao. Others are the Vadodara Gate on the west, the Champaner Gate on the north and the Nandod Gate on the south. Of these gates

1. SOMPURA KANTILAL F. (DR.), *The Structural Temples of Gujarat*, 1968, p. 186 to 188.

2. SANKALIA H. D., *The Archaeology of Gujarat*, (Bombay), 1941, p. 67.

3. According to a legend popular in Gujarat, the name Hira Gate is associated with its architect Hiraadhar who was ordered to be buried alive at this place by King Vishaldev. It is said that Hiraadhar was in love with a beautiful maid-servant (named Tena) working in the palace. To please Tena, Hiraadhar was secretly constructing a tank (Ton Talav) out of the building material reserved for constructing the fort. The king came to know about this misappropriation and ordered that Hira should be buried alive in the fort. However, there is no historical evidence in support of this story.

the Vadodara Gate is the least destroyed, and thus preserves some of its architecture, while the Hira Gate though much ruined and even altered during the Muslim period, retains some of its rich decoration. Thus Dabhoi has fine archaeological remains of great antiquity.

Dabhoi is the headquarters of Dabhoi taluka and Dabhoi Sub-Division. There are four saw mills, four ginning factories, four soap making units, three iron works, three oil mills, a big chemical concern known as the Baroda Chemical Industries Ltd., another industrial concern manufacturing copper and brass vessels for which the town is famous, several flour-mills, handicrafts making cradles, textiles, etc. There is a seed multiplication centre and a model farm. It is a big trading centre in the taluka. Dabhoi is the birth place of the famous poet Dayaram whose *Garbis* are well-known in Gujarat. Acharya Hemchandra wrote the concluding portion of his *Yogshastravrat* (*योगशास्त्रवृत्ति* ग्रंथ) while in Dabhoi. The town can also boast of poets like Ratneshwar who lived during the 17th century. The Jain Pandit Yasho-Vijay Upadhyay, who died here in 1687 A. D. had over 1400 literary works to his credit.

Dabhoi has its own water works. Five wells including a jack well are constructed in the river Orsang at Karnet, at a distance of about 8 km., from Dabhoi, and the pipe lines are laid in the town.

A minaret and a portion of post known as *Bibi dargah* are protected monuments at Dabhoi. Besides the ancient Shiva and Jain temples mentioned earlier there are temples of Vagnath, Mangaleshwar, Kalka Mata, Ashapuri and Gadh Bhavani. Three fairs are held here during the month of Aso.

Dabhoi has 15 primary schools, six secondary schools, a basic training college for primary teachers, colleges in arts, science and commerce, four hospitals, two public dispensaries, two family planning centres, and two cinema houses. There are four public libraries and a Jain Granth Bhandar with rich collection of old manuscripts. There is a dance and music school also. The town is electrified and has post, telegraph and telephone facilities. There are branches of State Bank of India, Punjab National Bank, Bank of Baroda, Dena Bank, the District Central Co-operative Bank, the Urban Co-operative Bank and the Mahalaxmi Mercantile Co-operative Bank.

Dabka—Padra Taluka (P. 5,599)

Dabka, named after the Danknath Mahadev, is 28 km., from Vadodara and is situated on the left bank of the river Mahi. A wide view is obtained from this place of the curving river, the plain on the right bank and of

the shadowy out-line of the solitary hill of Pavagadh in the background far away to the east. About 2 km. to the west of the village there was the hunting ground used by the Gaekwad rulers. The ground has now been distributed for agricultural operations among the agriculturists of the surrounding six villages. Among places of religious importance, there is the Danknath Mahadev, the Amareshwar Mahadev with a stone inscription of Samvat 1356, a Shikotari Mata temple, a Swaminarayan temple, a Raniji temple and a mosque. Dabka is served by a primary school, a secondary school, a training college for primary teachers, a maternity home and a post office.

Dariapura—Sinor Taluka (P. 290)

Dariapura is a small village, 10 km., from the taluka headquarters with which it is connected by the State Transport bus services. It is known for the temple of Badrinarayan on the bank of the river Narmada. The temple constructed in the year 1956 is situated on an elevated ground of about 200 feet high. It is visited by many pilgrims from all over Gujarat. There is an Ashram known as Sridharanand Ashram which runs a *sadavrat*. The village has a primary school.

Ekalbara—Padra Taluka (P. 2,200)

Ekalbara is situated on the bank of the river Mahi about 5 km., from Padra, the taluka headquarters. It is connected by the State Transport bus service with Padra and other places of the taluka. The village has an old *dargah* of Pir Murshid Saiyad Kayamuddin (Chishti) who was a descendent of Mota Miya of Mangrol, built about 300 years ago. A fair is held here every year on the Magshar Sud 15. People from the surrounding villages come here for propitiation. The village has a Balvadi, a primary school and a post office. Formerly, this was a Jagirdari village.

Fertilizernagar—Vadodara Taluka (P. 5,327); Area 2.63 sq. km.

Fertilizernagar is the new township about 11 km., from Vadodara city, established in 1967 to provide residential, educational and other facilities to employees of the Gujarat State Fertilizers Plant, near Bajva. The Gujarat Fertilizers Plant is the unique of its type and has gone a long way in meeting the requirements of farmers in the State. Since its inception, it has manufactured and sold over a million tons of fertilizers. The township has two hospitals, a family planning centre, a primary school, a secondary school and three libraries. There is a branch of Bank of Baroda. The place has a post, telegraph and telephone facilities and drainage system.

Ghayaj—Padra Taluka (P. 2,127)

Ghayaj or Ghoyaj is 1 km., from Padra, the taluka headquarters and 19 km., from Vadodara, the district headquarters. It is connected with both by the State Transport bus services. The village has an old Shiva temple of Ghojeshwar Mahadev with a Shiva *ling* having an impression of a cow's foot on it. Besides, the village has a beautiful Kamalakruti temple of Radha Krishna and a well-known temple of Chanchari Mata. The village has a Balmandir, a primary school, a library, a dispensary and a post-office.

Hanf—Chhota Udepur Taluka (P. 1,008)

Situated at a distance of 20 km., from Kavant and 42 km., from Chhota Udepur on the right bank of the river Narmada, Hanf is a place of pilgrimage of local importance. It is on the border of the three states Gujarat, Maharashtra and Madhya Pradesh. It is situated amidst hilly and forest area in beautiful surrounding with the river Narmada on the south and hills and ravines on other sides. This was the place of refuge, and for some time the headquarters of the Champaner Chohans. There is an old temple known as Hanfeshwar Mahadev. A large ancient mill-stone known as *Hedimba-ni-Ghanti* is lying in the temple compound. There is a tiny banyan tree about two feet high and with only seven leaves on it. It is attached to the *Shiva ling* opposite the main temple. Hanf is a picnic place and has an Ashramshala.

Harni—Vadodara Taluka (P. 686)

Harni is situated at a distance of 6 km., from Vadodara. The village is on the Vadodara-Delhi National Highway and is near the Vadodara aerodrome. The road from Vadodara to the Pavagadh hill passes by this village.

There is an ancient temple of Hanumanji, built by Khanderao Gaekwad. On every Saturday of *Shravan* a fair attended by about 15,000 persons is held at this temple. There is also an old Shiva temple known as Moteshwar Mahadev or Mokshnath Mahadev. The temple has a large *Swayambhu* Shiva *ling* and old idols of Ganesh and a goddess with four hands. In the temple compound, there are several shrines dedicated to Shiva and Parvati. Near this village there is the factory of the Golden Tobacco Company. The village has a primary school, a secondary school and a post office. Besides, there is a rice mill, a pulse mill, two saw mills and two flour mills.

Jabugam—Jabugam Taluka (P. 2,778); 22° 17' N., 73° 46' E.

Jabugam is a railway station on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway, about 20 km., from Chhota Udepur.

It stands on the State Highway connecting Chhota Udepur with Vadodara. It was the part of the former Chhota Udepur State. The name Jabugam was acquired from "Jambu Brahmins" who resided there in the past. At present, most of the area is inhabited by Adivasi people. Though the village belongs to the Jabugam taluka, the headquarters of the taluka is located at Pavi-Jetpur. There is an ancient step-well. Water for agricultural operations is drawn from wells by installing pumping plants. The shrine of Telav Mata nearby is visited by many devotees. About 4 km., west of the village is a temple of Hanumanji on the hillock known as "Shyamsunder Tekri". The village is served by a primary school, a high school, a dispensary and a post-office.

Jarod—Vaghodia Taluka (P. 4,361); 22° 26' N., 73° 20' E.

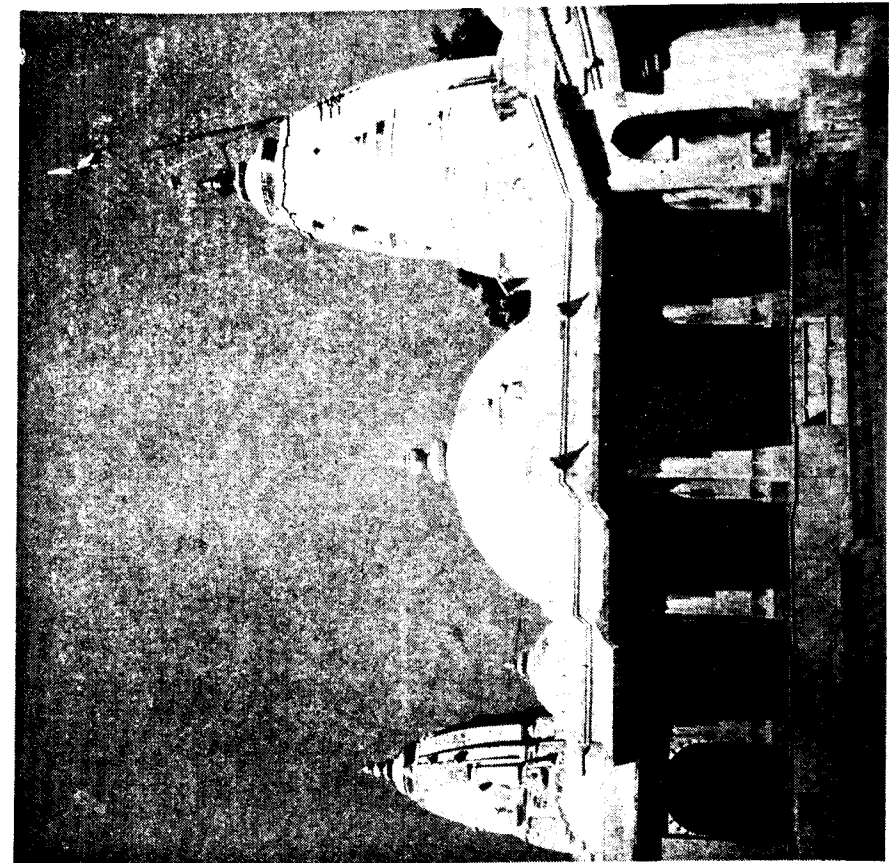
Jarod is a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. It is situated on the bank of the river Vishamitri, on the Vadodara-Godhra National Highway. The State Transport buses ply there. There are two rice mills, two oil mills, two primary schools, a secondary school, a post office, a government dispensary, a library and a branch of Bank of Baroda. The irrigation tank named Kumbharia tank supplies water for agricultural purposes to the lands surrounding Jarod.

Jawaharnagar—Vadodara Taluka (P. 5,710)

Jawaharnagar is a new township specially established in 1963-64 to provide residential, educational and other facilities to employees of the Gujarat Oil Refinery. It is about 6 km., from Vadodara, the district headquarters and less than a km. from Bajva, the nearest railway station. The township is named after Pandit Jawaharlal Nehru who had laid the foundation of the refinery on 10-5-1963. It is the third public sector refinery built in collaboration with the Russian Government. Jawaharnagar has a hospital, a family planning centre, three primary schools, three secondary schools and a library. It has protected water supply system of sewerage drainage and fire fighting service facilities.

Jojwa—Sankheda Taluka (P. 365)

Jojwa is a railway station on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway, 12 km., from Sankheda, the taluka headquarters, with which it is connected by the State Transport buses. In the year 1909-10, the former Baroda Government constructed at this village a dam across the river Orsang at a cost of Rs. 11 lakhs. From the reservoir at Jojwa, a feeder 17 km., long carries the water to the Vadhvana tank which has a capacity of 4,536 lakh cubic feet. The dam is still in excellent condition. Jojwa has a primary school and a post office.



Kubereshwar Mahadev Temple, Karnali

Kanjetha—Sinor Taluka (P. 788)

Kanjetha is 3 km., from Sinor, the taluka headquarters. It is a historical place situated on the Bank of the river Narmada. A mention about this village is said to have been made in *Shrimad Bhagvat*. There is a temple of Saubhagya Sundari, so named because a visit to this temple is believed to bestow long married life (*saubhagya*) to the married woman (*sundari*). Kanjetha has a primary school.

Karjan—Karjan Taluka (P. 11,968) ; N. P., 22° 03' N., 73° 07' E.

The town Karjan is popular as Miyagam-Karjan. It is a railway junction under the name Miyagam which is an adjoining village, where the following sections of the Western Railway meet : (I) Bombay-Ahmadabad broad gauge section, (II) Chandod-Malsar narrow gauge section (III) Miyagam-Moti-Koral narrow gauge section. Being the taluka headquarters, all taluka level offices are located here. The Nyaya Panchayat is also located here. Karjan is an important trading centre of the district. It has the distinction of having one of the oldest co-operative ginning and pressing factories in Gdjarat. There are three private ginning and pressing factories also. Besides, there is a stone crushing factory, five oil-mills and six cement pipe factories. A separate area has been earmarked for starting an industrial estate here. Karjan has facilities of electricity and piped water supply. It has a cinema house, a sanskar kendra and a gymnasium.

The town has two primary schools, a secondary school, an arts and commerce college, a public library, a Mahila library, a primary health centre, three well-equipped private hospitals, a government dispensary and a veterinary dispensary. There are branches of (1) State Bank of India, (2) Bank of Baroda, (3) the Baroda Central Co-operative Bank and (4) the Baroda Industrial Co-operative Bank. Besides, the town has Karjan Nagarik Co-operative Bank.

Karnali—Dabhoi Taluka (P. 1,705)

Karnali is a place of religious importance. It is situated at a distance of about 2 km., from Chandod which is the terminus on the Chandod-Malsar narrow gauge section of the Western Railway. It is 22 km., from Dabhoi, the taluka headquarters. Karnali is separated from Chandod by the river Orsang, both the places being on the same bank of the river Narmada. The confluence of the two rivers imparts sanctity to both the villages, but Karnali enjoys the reputation of greater antiquity. There are temples of Someshwar, Kubereswar, Pancheshwar, Siddhanath and Koteswar Mahadev besides those of Murlidhar, Satyanarayan, Ranchhodrai, etc. There are other temples of Gita Mata, Narmada Mata, Shreenathji and Omkareshwar Mahadev. On Chaitra Sud 15 about 15,000 persons congregate and visit Kubereswar Mahadev.

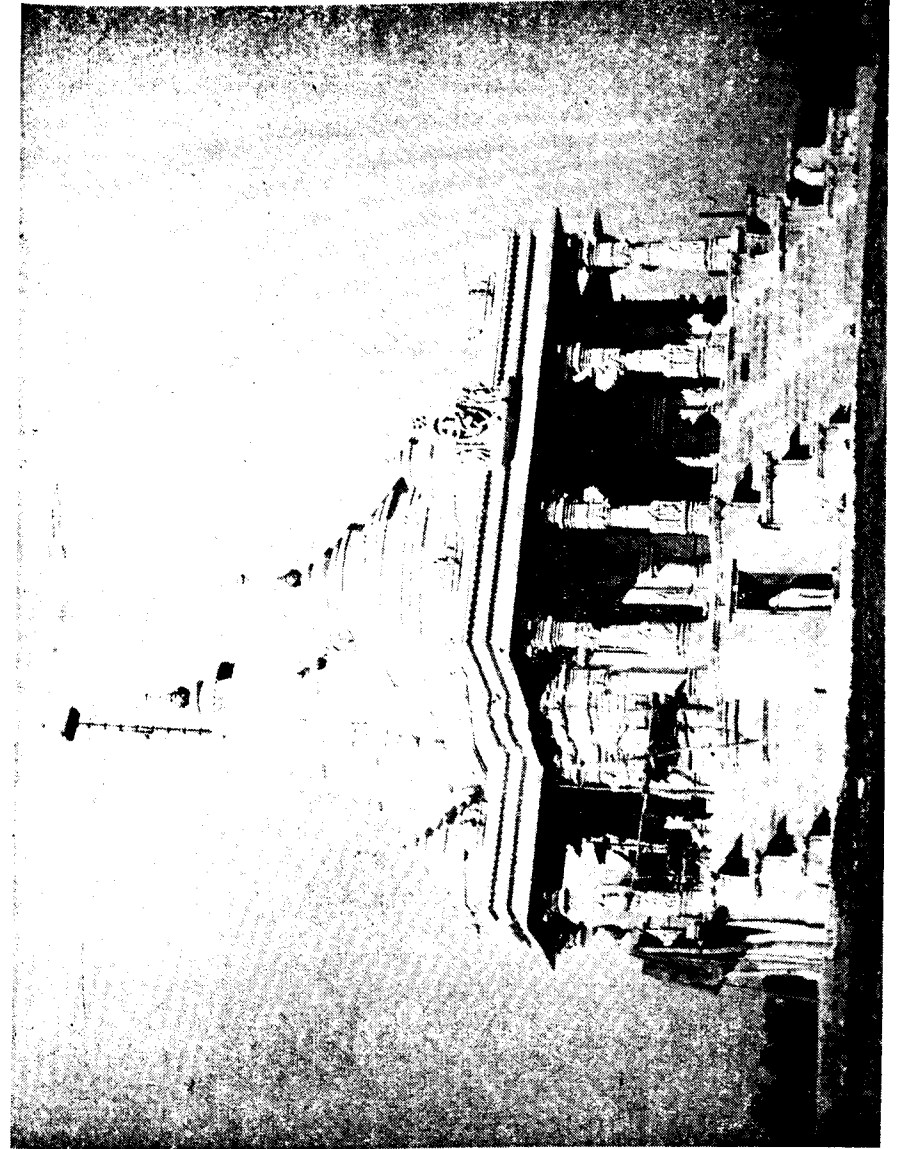
In the courtyard of the temple of Kubereshwar Mahadev there are sculptures of Uma-Maheshwar, Vishnu, Varahi and Ganesh. Of these, the sculpture of Uma-Maheshwar appears to be ancient. The temple of Ranchhodji, in the compound of Kubereshwar Mahadev, contains a standing image of God in black stone with arms and lotus in four hands. The idol of Narmada-Mata has crocodile as a vehicle at the feet of the Goddess. The Gayatri temple was built in the year 1924 A. D. There are footprints of Dattatraya, in the temple complex behind Satyanarayan temple. It also contains an old image of Uma-Maheshwar in good condition. There is a Chaturmukh idol of Brahmeshwar Mahadev at Karnali. The Someshwar Mahadev temple also contains images on its circular dome. There is a large idol of Goddess Lakshmi in the Koteswar Mahadev temple. There is also another temple dedicated to Kashivishwanath Mahadev. The *ghats* on the Narmada at Karnali are known as the Kubereshwar Ghat and the Gayatri Ghat. There is another unbuilt Ghat called the Morlisangam beyond the Kubereshwar Ghat, where ashes of the dead are immersed in the holy waters of the Narmada. Karnali has a water works, a primary school, a dispensary, a post office and a rest house.

Karvan - Dabhoi Taluka (P. 8,059) : 22° 05' N., 73° 15' E.

Karvan, also known as Kayavarohan, is a place of very ancient origin. It is a railway station on the Chandod-Malsar narrow gauge section of the Western Railway about 8 km., to the east of Miyagam and 11 km., to the west of Dabhoi. It is connected with Vadodara by the State Transport bus service.

In each of the four *Yugas* (ages) this holy place has been known by a different name : first, it was Ichhapuri, then Mayapuri or Kanbhadra, then Medhavati and then Kayavarohan whence the name 'Karvan'.¹ The *Karvan Mahatmya* and other works in Sanskrit state that there were at this place a Mahadev called Brahmeshwar, a Brahma Kund, 84 Siddhs, 8 Bhairavas, 11 Mahadevs, 12 Suryas, 6 Ganpatis, 24 Goddesses and a spot sacred to Lord Vishnu. The cause of the great sanctity of the place is mentioned thus : Before the *Kali Yuga*, in the *Dwapar Yuga*, there lived at Ulkapuri, that is Avakhal (Sinor taluka) a holy Rishi named Sudarshan whose chaste wife gave birth to a son at midnight on the 14th day of the dark half of Bhadrpad. A few years later the Rishi went on a pilgrimage to Banaras to bathe in the holy Ganges during an eclipse which was to take place in the month of Ashadh. While he was away, his wife performed the fire worship, the *Agnihotra*. One night she forgot her daily duty but the child took it on himself to carry on the worship and continued to do so till the Rishi returned when both the parents secretly watched the babe as it went through the ceremony faultlessly at night. The child then suddenly expired and when

१. कृते इच्छापूरी नाम त्रेतायां च मायापूरी ।
द्वापरे मेधवती नाम फलो कायावरोहणम् ॥



The temple of Lakulish Mahadev at Karvan

its body was taken to be bathed, it disappeared. The spot was, therefore, called Kaya-Virohan. The Rishi wept and asked the vanished child who he was. The reply heard was, "I am the essence of the five elements (पंचतत्त्व)". The Rishi thereupon knew him to be Brahmeshvar or Lord Shiv. The place, therefore, became popular as Kayavarohan as Lord Shiv himself had descended on this land in form of a human being. It is said that the Mahadev who took birth in the house of the Agnihotri Brahman at Avakhal was named Nakuleshwar (नकुल=नविद्यते कुलं यस्य सः). When he went to Kaya-varohan as a boy and begged for a resting place, he could not get any as the whole area had been taken up by one or the other of the gods. God Brahmeshvar thereupon seated him on his lap, an event which is represented by the images of the two gods carved in one stone.

In 1965, Swami Kripalvanandji who had come here to settle, founded Shri Kayavarohan Tirth Seva Samaj and with the help of the local people laid the foundation of the Brahmeshwar Yog Mandir. The idol of God Brahmeshvar was consecrated at the newly built Yoga Mandir here in May, 1974. The idol of Lord Shiv's incarnation is said to be the work of sage Vishva-mitra, who flourished about 4000 years ago. In this sense, it is the oldest Shaivite shrine of Gujarat. It has been planned to set up religious and educational campus near the temple at a cost of Rs. 5 crore.

Among the ancient remains found from Karvan, mention may be made of punch-marked copper coins, terracotta figurines and a four legged stone quern with hornless gryphons. Another complete quern of sand-stone with a similar but Indian motifs is acquired by the Department of Archaeology, M. S. University, Vadodara. Dr. Sankalia has ascribed the Maurya-Guptan age to such querns as they come from the early historic period. A beautiful stone Roman cameo of some patrician woman was discovered from here. A coin of Wemakadphises (40 to 78 A. D.) who was known as Maheshwara was found from Karvan : a coin of Sri Sathikarni with bull mark was also secured from here. A hoard of lead-coins of the Andhras recovered from Karvan were found in the collection of the late Rairatna Ramanlal Desai. Similarly, bricks measuring 15" × 9" × 3" assignable to Gupta period and red and black potteries have also been discovered from this ancient site.

Karvan has also yielded a beautiful head of the Tapas or Tapasi showing an artistic knitting of the hair which can be seen from the front as well as from the back views of the head. The image of Kartikeya belonging to the 8th century A. D. has also been discovered from here. The worship of Kartikeya is related to the Shiva pantheon popular here under the influence of the Lakulish sect. There is another beautiful idol of Uma Maheshwara standing against the Nandi. This is an impressive specimen of culture under the Gurjara Pratihara rule in the 9th century A. D. A loose sculpture of Kaumari in one of the temples in a dancing pose belongs to the unknown pantheon of the Lakulish sect from Karvan.¹

1. M. R. MAJMUDAR, *Historical and Cultural Chronology of Gujarat*, (1960) p., 276

The idol of standing Surya is assignable to the 9th Century at the latest. It wears an *ekavali* and a golden chain girdle, with a chain hanging on each thigh, and the beaded armlets which have been common to sculptures of the Shamalaji group. The oblong halo with a lotus-petal border at the end is remarkable. The Surya holds the lotus. The smaller figures of Danda and Pingala still retain the earlier Gupta traditions. The crown appears to have evolved from the crown of Vishnu from Bhinmal, and the stone-head from Shamalaji, which is again comparable with the high crown from Elephanta Mahesha-murti and the crown of Jivantasvami bronze from Akota.¹ Red polished earthen wares belonging to the Kshatrapa period have also been discovered from here.²

On the bank of a lake there are several *samadhis* (small shrines) which have beautiful wall-paintings on the inner walls and domes, depicting pictures from the Puranas.

According to one opinion, Karvan was founded by sage Vishvamitra. It was then popular as Paschim Kashi. Sage Bhrigu and Atri had performed penance at this place. It is believed to be the original place of Lakulish, the founder of Pashupat Sampradaya. The stone relics of the old times found near Karvan indicate that it was a place of great religious importance.³ To propagate the principles of the Pashupat Sampradaya, Lakulish had deputed four of his disciples from here to the four corners of India. In fact, the management of the temples of Somnath Patan and Kashi-Vishwanath and other *Jyotirlingas* of India was under the supervision of the preceptor at Karvan.

It is said that the Mahmud of Gazni had invaded the temple of Kayavarohan: but the *Jyotirling* of this temple miraculously disappeared from the scene and was thus saved. During the 14th century after the establishment of the Muslim rule, this place was totally forgotten and lost its former sanctity and glory. About 110 years ago, the *ling* was found in a farm near here.

Karvan has an ancient temple of Ranchhodji with a stone inscription dated Samvat 1358.⁴ Besides there are other temples dedicated to Shri Vaijnath Mahadev, Shri Bhuvaneshwari Mata, Shri Raj Rajeshwar (Lakulish), Bilkeshwar Mahadev, Shri Morlidhar, Shri Ramji, Shri Somnath Mahadev,

1. M. R. MAJUMDAR, *Historical and Cultural Chronology of Gujarat*, (1960) p. 273.
2. Speech delivered by Shri Ramanlal H. Patel (President, Karvan village panchayat) at the Gujarat History Conference at Karvan on 8 and 9 February, 1975.
3. Article by Dr. Umakant Shah and Dr. Ramanlal Mehta in the Journal of the Gujarat Research Society, Vol. XX, October, 1958.
4. *Shri Kayavarohan Tirthno Itihas*, Edited by Patel Hiralal Shamalbhai (1964), p. 4.

Shri Balaji, Shri Babulnath, Shri Kashivishvanath, Shri Mangaleshwar, Shri Sindhvai Mata, Shri Verai Mata, etc. On Aso Sud 1 to 10, i. e., during the *Navratri* festival the Sindhvai Mata fair is held with a congregation of about 10,000 persons. On *Maha Shivratri* a procession of *Shiv*, with about 7,000 persons, moves from Raj Rajeshwar Mahadev also known as 'Nakulesh' or 'Lakulesh' to Vaijnath Mahadev, one km., away. The idol of Shiva (Raj Rajeshwar) is unusual. It is in human shape along with a *ling* and is made of black touch stone. It is called 'Mukh Ling'.

Karvan has a Balmandir, two primary schools, two secondary schools, a public library, a hospital, a maternity home, a dispensary, a family planning centre and a post and telegraph office. The village is equipped with electricity. There is a branch of Central Bank of India. Karvan is a trading centre and has two ginning and pressing factories. Cotton and tobacco are the chief cash crops grown in this area.

Kavant—Chhota Udepur Taluka (P. 4,569)

Kavant is 24 km., from Chhota Udepur, the taluka headquarters, with which it is connected by the State Transport bus service. It is a big trading centre for the surrounding villages. It is also the nearest trading centre for the residents of the industrial township of Kadi Pani where the flourspar project of the Gujarat Mineral Development Corporation is located. Kavant is known for its pottery works. There is an oil mill. The branches of the Central Bank of India and the District Co-operative Bank are opened here.

Kavant has a Balvadi, a primary school, a secondary school, a Madresa, a maternity home, a health centre and a post office. A large fair of the Adivasis is held here on the third day after the Holi festival when the participants dance and play music in the streets for the whole day.

Kosindra—Sankheda Taluka (P. 2,292)

Kosindra is 15 km., from Bodeli, a railway station on the Jambusar-Chhota Udepur railway line. It is also served by the State Transport bus services. The village is known for the shrine dedicated to a legendry saint, popularly known as Chamakla Bava. It is believed that a child suffering from epilepsy is cured if brought to this shrine. Kosindra has a primary school, a secondary school, a public dispensary and a post office.

Kukas—Sinor Taluka (P. 1,557)

Kukas is 4 km., from Sadhali, a railway station on the Chandod-Malsar narrow gauge section of the Western Railway. It is 6 km., from Sinor,

the taluka headquarters. The Nayakaka Pir fair is held here on Bhadrapad Sud 2 and 3 in memory of a Koli dacoit of that name. Nayakaka became a disciple of Imamsha of the Pirana sect and was then consecrated as a saint. The *dargah* (tomb) is worshipped by Muslims and Hindus alike. Kukas has a primary school and a post office.

Kukrej—Tilakwada Taluka (P. 85)

The village Kukrej is about 15 km., from Tilakwada, the taluka headquarters. In ancient time, the village was called Kankavati Nagari. The village has remnants of an old fort with four bastions. There is an idol 6 to 7 ft. high said to have been of a dog of a Vanzara. The mothers who are unable to feed their young ones visit this place for a cure. The maund has some relics of some old settlement with one idol of Chaulukya period.

Makarpura—Vadodara Taluka (P. 3,664)

Makarpura is a railway station on the Bombay-Ahmadabad broad gauge section of the Western Railway, near Vadodara City. It is almost a suburb of Vadodara, situated on the National Highway No. 8. The beautiful palace known as Makarpura palace built in the Italian fashion by the rulers of the former Vadodara State is located here. There are several factories nearby which include a plastic factory, a ball-bearing manufacturing unit, two saw mills, a tile factory and a biscuit manufacturing unit. The village is electrified and has a Balmandir, a primary school, a high school, a post office, a library and a dispensary. A local Mahila Mandal runs sewing and embroidery classes. The village is served by a mobile branch of Bank of Baroda. A private milk dairy known as Gosamvardhan Dairy runs a Gaushala in the village.

Malsar—Sinor Taluka (P. 1,883)

Malsar is a terminus on the Chandod-Malsar narrow gauge section of the Western Railway. It is situated on the bank of the river Narmada. The State Transport buses ply here during fair season. The climate of this place is very agreeable and healthy.

The sacred shrines of Mangleshwar Mahadev or Angareshwar Mahadev and Satyanarayan are situated in the village. The temple of Satyanarayan is more impressive. At the entrance of the temple there is a *samadhi* of saint Madhavdasji Maharaj. The temple has a *dharmashala*. The present temple was constructed in Samvat 1975. It is said that the Pandavas had stayed for some time in the nearby forests. There are old temples of Pandeshwar and Bhimeshwar Mahadev. Another temple of Mataji in the Premanand Ashram is worshipped by many. The Ashram was established by one Premdas

Brahmachari who also opened an *Annakshetra*. On every Thursday of Shravan a fair is held at the Angareshwar Mahadev when about 4,000 persons congregate.

Malsar is served by electricity, waterworks, a primary school, a library and a post office. There is a Bidi Kamdar Co-operative Society.

Mandva—Dabhoi Taluka (P. 2,928)

Mandva is at a distance of 2 km., from Chandod which is the terminus on the Chandod-Malsar narrow gauge section of the Western Railway, and 22 km., from Dabhoi, the taluka headquarters.

Before the merger of the Sankheda Mewas in the Vadodara district, this was the chief village of the petty estate of Mandva which along with other estates formed the Sankheda Mewas. It is separated from Chandod by a deep ravine which has been bridged over. There is an old temple of Markandeshwar Mahadev at the village. It is said that in the past the village was mainly populated by Brahmins who invited Rajputs from outside for their protection. According to a legend, the demon Mund was killed here by the Goddess Chandika. The village was therefore named Mundva or Mandva. The Rajput chiefs of this village were known as Maharana and had social relations with the Gaekwad family. A fair with a congregation of about 4,000 persons is held on *Kartiki Purnima* when the participants bath in the river Narmada.

The village has two primary schools, a police station and a post and telegraph office. It is mainly populated by Rajputs.

Mankani—Sankheda Taluka (P. 5,929)

Mankani is at a distance of 12 km., north of Sankheda. The nearest railway station is Jojwa, 4 km., away on the Jambusar-Chhota Udepur narrow gauge section of the Western Railway. The old name of this place appears to be Mankanika and has been mentioned as such in copper plates of Tara Swamy of Katchuri dynasty in 595 A. D. Similarly, it has been mentioned by the Rashtrakuta king Karka Suvarna Varsha in his copper plates of A. D. 816. It was the administrative division of this area and was termed as 'Bhukti'.¹ Sultan Ahmad Shah I after plundering Sankheda came to Mankani in A. D. 1419, fortified this village and established his camp here. The fort was built as a protection from a possible invasion from Malva.² The Sultan again visited this place in 1422 after his return from Malva and posted his army on permanent basis.³ It has a fine large lake with a brick

1. *Gujaratno Rajkiya ane Sanskritik Itihas* Vol. I, (Editor R. C. Parikh and H. G. Shastri) p. 395.
2. *Gujaratno Sanskritik Itihas*. Vol. II, by Ratnmanirao Jote (1954) p. 325.
3. Majmudar Chandramaulies article in the Souvenir of Sankheda Sarvajanik Education Trust (1972), p. 11.

and cement wall on the south-west. It was once a thriving and populous place. The remains of several shrines, the old fort, a mosque and several step-wells still exist in the village. A stone inscription preserved in the local high school was discovered from one of the step-wells. It indicates that the step-well was built by Santdas in Samvat 1636-1637.

There are several old temples among which special mention may be made of Ranmukteshwar Mahadev near the lake in beautiful surroundings. The Shiva *ling* is old and *swayambhu*. The door panel has images of the *Nav grahas*. Two other Shiva temples nearby also contain several ancient idols of Ganpati, Parvati, Hanumanji, etc. A few other old remains of stone idols lie scattered near the village. There is a big Shiva *ling* in the field on the outskirts of the village. It is an old idol of a large size.

Mankani has a primary school, a secondary school, a public library, a maternity home, a primary health unit and a post office. The village is electrified and has water works.

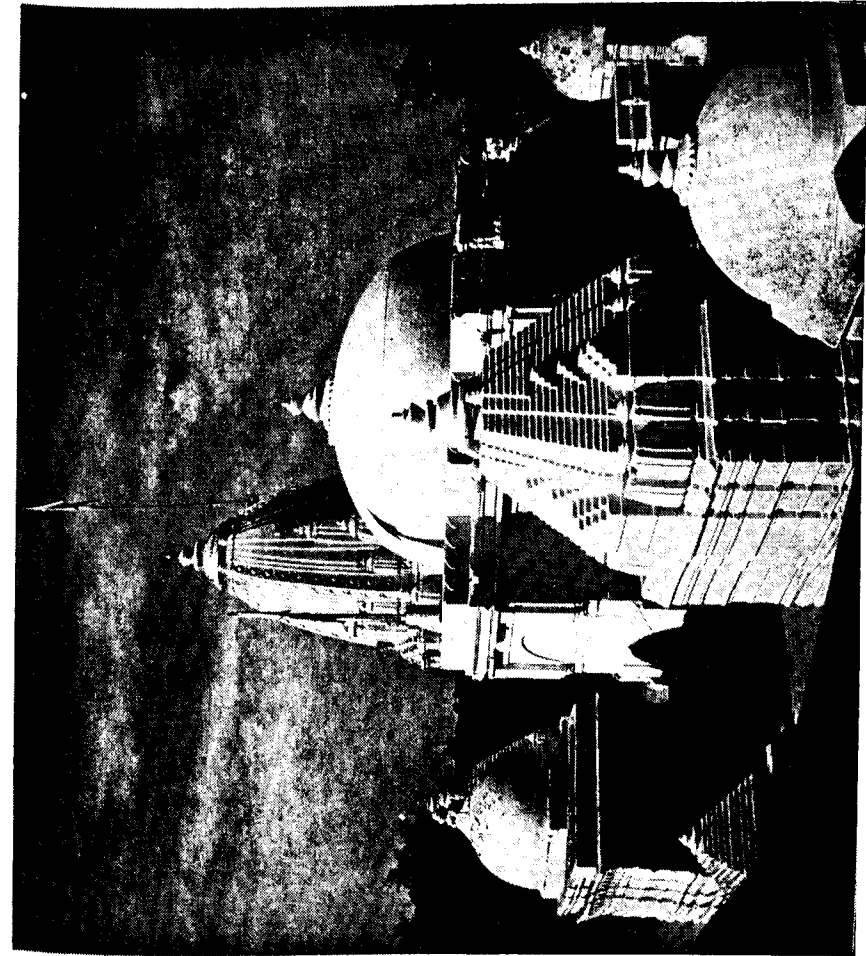
Mohan or Ali Mohan—Chhota Udepur Taluka

Ali Mohan also known as Mohan or Mohvan is not a separate village now but the site of the capital of the chiefs of the Chhota Udepur State during the 17th century. It is near village Vejpur of Chhota Udepur taluka. After losing Champaner (1484) they fled to Hanf on the Narmada and seem to have, about the middle of the 16th century, moved to Ali Mohan a place more likely to attract trade. The ruins of the fort stand on a conical hill, from 200 to 300 feet above the plain. Below it, are ruins of houses, gateways and a step-well, *dargah* and the remains of two broken round towers. The step-well has some old idols carved on its niches. It is in a fairly good condition and needs to be preserved as a protected monument.

Moti Koral—Karjan Taluka (P. 2,343)

Moti Koral is a railway terminus on the Miyagam-Moti Koral narrow gauge section of the Western Railway. Situated on the bank of the river Narmada, this is an ancient place of sanctity and has temples of Adityeshwar and Panch Kubereshwar Mahadev. The latter has two shrines with very large Shiva *lings*. The well-known Ashram of Sant Punit Maharaj attracts attention of the devotees. On the outskirts of the village, there lies a beautiful old idol of Uma-Mahesh believed to be of the Chalukyan style.

A fair known as the Panchkubershwar is held on Ashad Sud 11 (July) when about 7,000 persons congregate. The village has a primary school, a secondary school, a private dispensary and a post office.



The Ancient Temple dedicated to Lord Shiv at Moti Koral

Muval—Savli Taluka (P. 1,301)

Muval is a village 3 km., from Savli, the taluka headquarters. Under the name 'Muval Tank' there is a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. There is a big tank the construction of which is ascribed by tradition to king Mayurdhvaj of the Mahabharat age. The village has temples of Shiva, Verai Mata, Sonbai Mata and Ramdev Pir, and a shrine of Sant Keval. Muval has a primary school, a post office and four co-operative societies.

Nandigram (Nanderiya)—Dabhoi Taluka (P. 619)

Nandigram or Nanderiya is a small village about 2 km., from Chandod. In the past, however, it was a large village with a fort which is now ruined. It is believed that the village was popular as Nanderiya during the Muslim period and was ruled by a king named Nand Raja. Later on, the seat of the ruler was shifted to Chandod-Mandva. There is an ancient temple of Nandikeshwar-the family deity of the ex-rulers. The village has a primary school, a dispensary and a post and telegraph office.

Nareshwar—Lilod—Karjan Taluka

Nareshwar is situated in picturesque surroundings on the bank of the river Narmada about 23 km., from Karjan, the taluka headquarters. It is 4 km., from the Nareshwar Road railway station on the narrow gauge railway line between Miyagam and Moti Koral and forms part of the Lilod village of the Karjan taluka. It is connected by the State Transport bus service with Ahmadabad and also with Karjan, Vadodara and other important centres of the district.

Nareshwar is well-known for the Ashram of the famous saint Rang Avadhoot who came here in 1925 and established an Ashram and performed many miracles. As such, the place developed as a pilgrim place attracting many people.

There was an old Shiva temple where Lord Ganesh was said to have installed a *ling*. This temple was known as Kapardishwar Mahadev which is now called Nareshwar. It is said that one Naropant, a devotee of Lord Ganesh, once had a dream that a Shiva *ling* was lying under the sand of the river Narmada. Naropant thereupon dug out that place and found out the *ling* and installed it in the temple. This temple was later on renovated by Shri Rang Avadhoot. The present temple has an octagonal *sabhagrih*. There are the *samadhis* of Rang Avadhoot and Mataji, and a *dharmashala* for the pilgrims. Besides there are the Avadhoot Gufa, Rang Mandir, Datta Padukas, Anushthan Mandir, etc.



Ashram of saint Rang Avdhut at Nareshwar

Shri Rang Avadhoot had discontinued his study after graduation and had joined the Gujarat Vidyapith. He worked as a social worker in the villages of the Panchmahals district and thereafter as a writer and a teacher. He wrote in Hindi, Gujarati, Sanskrit and Marathi languages. His books entitled *Gurulilamrit* and *Datta Bavani* are well-known. In his later life he lived with his mother (Mataji) at the Nareshwar Ashram. He died in 1968. Near his Ashram there is a holy neem tree which has sweet leaves. It is said that Rang Avadhoot had performed *tapa* here. Fairs are held here on festive occasions. The Ashram has a library with rich collection of books.

Nasvadi—Nasvadi Taluka (P. 4,173); 22° 03' N. 73° 44' E.

Nasvadi is the taluka headquarters and a railway station on the Chhuchhapura-Tankhala narrow gauge section of the Western Railway. It is situated on the bank of the river Ashvin. According to a legend Nasvadi is believed to have been named so after the demon 'Nishumbha' and as such appears to be an ancient place. Before the merger of the Sankheda Mewas group of estates with the Vadodara State, it was the seat of the Solanki rulers of the Nasvadi estate. It is the business centre for groundnut and cotton and forest produce like charcoal and wood. It has a market yard. Being the taluka headquarters, all taluka level offices are located here. It is served by all important amenities like electricity, post office, telegraph and telephone offices, a rural health centre, a maternity home, two primary schools, a high school, a public library, police station and a cinema house. It is also served by a pay office of Central Bank of India and a branch office of the District Central Co-operative Bank. There is an urban co-operative society also. Outside the village, there is an ancient Shivalaya of Jagnath Mahadev on the bank of the river Ashvin, besides Shrinathji temple, Vaishnav Haveli, Gopalji temple and a mosque. A fair is held here at the Jagnath Mahadev temple on the Shivaratri festival.

Nimetha—Vaghodia Taluka (P. 1,361)

Nimetha is situated at a distance of 13 km., from Vadodara and 10 km., from Aiwā which is a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. The water of the lake, Sayaji Sarovar of Aiwā is filtered in the beds at Nimetha before it is supplied to the city of Vadodara. The village has hill gardens and is a picnic spot. Nimetha has a primary school, a secondary school, a health centre and a post office.

Padra—Padra Taluka (P. 24,239); N. P.

Padra is a railway station on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway at a distance of about 19 km., from Vadodara with which it is connected by an asphalt road on which the State Transport buses ply.

Being the taluka headquarters, all taluka level offices are situated here. The Regional Rural Health Training Centre at Padra trains the internees from the Baroda Medical College. Padra has several places of worship. Among them mention must be made of an ancient temple of Padharai Mata from which the town seems to have derived its name Padra. The other temples include those of the Amba Mata, Kalika Mata, Verai Mata, Khodiyar Mata, Vagheshwari Mata, But (७३) Mata, etc., the Shiva temple of Achaleswar, Loteswar with a stone inscription of Samvat 1735, Ramnath Mahadev, Nilkantheshwar Mahadev having a stone inscription dated Samvat 1791, Vajinath Mahadev (with ancient remains and idols of Brahma and Vishnu, Amba and Shanker, etc.). Besides, there are a Ramji temple, a Hanuman temple, a Baliya dev temple, a Ganesh temple, a Swaminarayan temple and an old Jain temple which has an idol of Shantinathji dated Samvat 1682. There is a shrine of saint Santram. There are two old step wells.

Padra is believed to have been founded by one Dala Patel popularly known as Dalo Padariyo in the 18th century. The catalogue (book No. 232 p. 85-87) of the Jain Bhandars at Jesalmir indicates Padra was known as 'Padra-Ura' or 'Padra-Gam' in the Vikram Samvat 1240. Padra was known in the past for its dyeing and printing and gold and silver works. It is also known for pulses and vegetables grown here extensively. There are six pulse mills, one rice mill, a co-operative ginning factory, one ice factory and two cinema houses. It has four Bal mandirs, four primary schools, four secondary schools, a pre-vocational training centre, an arts, a science and commerce college, a public library, a gymnasium, a hospital, a maternity home, and a family planning centre. There are branches of State Bank of India, Bank of Baroda, Dena Bank, the Baroda District Central Co-operative Bank and the Urban Co-operative Bank. Padra has post, telegraph and telephone facilities, protected water supply scheme, fire fighting service and drainage.

Pala—Nasvadi Taluka (P. 1,103)

Pala is at a distance of about 2 km., from Sandhia which is a railway station on the Chhuchhapura-Tankhala narrow gauge section of the Western Railway and is situated on the bank of the river Men. There is a well-known temple of Ranchhodrayji. It has an Ashramshala. On Janmashtami, a fair is held at the temple of Vishvanath Mahadev on the bank of the river Men, with a congregation of about 2,000 persons. It has a primary school and a co-operative farming society.

Pani—Jabugam Taluka (P. 830)

Pani is a small village known for the Pani Manganese Mines. There is a railway station called Pani Mines which is the terminus on the

Champaner-Pani Mines narrow gauge section of the Western Railway constructed for the export of manganese extracted from these mines. Pani has a primary school and a post office.

Por—Vadodara Taluka (P. 2,388)

The village Por is 12 km., from Vadodara, the taluka and district headquarters with which it is connected by the State Transport bus services. It is known for its Balia Dev temple which is visited by many devotees everyday. Fairs are held near the temple on every Sunday and Tuesday. Besides, there are temples of Swaminarayan, Ranchhodji and a Shivalaya. Por has a Balmandir, a primary school, a secondary school, a post office and a primary health centre besides a public library.

Rajvasana—Jabugam Taluka (P. 108)

Rajvasana is about 20 km., from Bodeli which is a railway station on the Chhota Udepur-Jambusar narrow gauge section of the Western Railway. A stone-weir ten feet high and 596 feet long has been constructed at this village across the river Heran.

Rangpur (Kavant)—Chhota Udepur Taluka (P. 532)

Rangpur is 24 km., from Chhota Udepur, the taluka headquarters, with which it is connected by the State Transport bus service during fair season. It is well-known in the district because of the Anand Niketan Ashram, a voluntary organisation situated here, which is serving the Adivasi population for the last 25 years. (Details about the Ashram are already given in Chapter XVIII—Public Life and Voluntary Social Service Organisations). Rangpur has a primary school, a dispensary and a post office.

Ranu—Padra Taluka (P. 3,881)

Ranu is a railway station under the name Ranu Pipri on the Jambusar-Chhota Udepur narrow gauge section of the Western Railway, about 8 km., from Padra. It is believed that Parshuram had his Ashram here. There are the temples of Parshuram, Renuka and Tulja Mata, the family goddess of Shivaji and of the Gaekwad. The temple of Tulja Mata overlooks a beautiful tank. Tulja Mata fair attended by about 30,000 persons is held here on the Aso Sud 8 or Durga Ashtami. There are two Swaminarayan temples and a Ramji temple. Ranu has a Balmandir, two primary schools, including a girls school, a secondary school, a public library, a dispensary and a post office. There is a co-operative ginning press, a card-board factory and a cement pipe factory.

Sadhi—Padra Taluka (P. 3,246)

Sadhi is 16 km., from Padra, the taluka head-quarters and 30 km., from Vadodara, the district head-quarters. It is connected by the State Transport bus services with important places of the district. There are beautiful idols of Brahma, Savitri, Saraswati, Tumburu and Narad Muni, Brahma's and Savitri's idols have 3 faces while the fourth is not seen. Brahma has four hands and in each hand there is ladde, rosary, book and *Kumandal*. The idols belong to the Solanki period, kept at a place known as Brahma-no-Tekro in the village. Besides, there are temples of Lord Rama, Swaminarayan, Narandev Mahadev, Nilkantheshwar Mahadev, Vireshwar Mahadev, Sureshwari Mata and Varahi Mata. The village has a Balmandir, two primary schools, a high school, a post office, a primary health centre, a maternity home and a vaterinary dispensary.

Sandhasal—Savli Taluka (P. 3,528); 22° 38' N., 73° 21' E.

Sandhasal is a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. It is 18 km., from Savli, the taluka headquarters. It is an important business centre and also the headquarters of the Sarvodaya scheme which was introduced in 45 backward villages of the Vadodara district. The village has temples of Krishna, Bhathiji, Jagnath Mahadev and Hanumanji. Sandhasal has two primary schools, a secondary school and a post and telegraph office. It has a branch of Central Bank of India.

Sankheda—Sankheda Taluka (P. 7,973); N. P.

Sankheda is an important town about 2 km., from the Sankheda-Bahadarpur railway station on the Jambusar-Dabhoi-Chhota Udepur narrow gauge section and at about the same distance from the Gojpur-Sankheda railway station on the Chhuchhapura-Tankhala narrow gauge section of the Western Railway. It is situated on the bank of the river Aursang (Orsang) which separates it from Bahadarpur. The town is of considerable antiquity and is said to have been named after demon Sankhav or Sankhasur. However, the name Sankheda more probably seems to have been derived from the old name of the town "*Sangam-Khetak*" as it is situated on the confluence (*sangam*) of two rivers, the Unchha and the Aaur (Aursang)¹. Stone relics belonging to the early stone age, middle stone age and late stone age have been found from the bank of the river Aursang.² The existence of five temples dedicated to the five Pandavas viz. Dharmanath, Arjunnath, Bhimnath, etc., also indicate that the Pandavas had perhaps visited this place.

1. *Gujaratno Rajkiya ane Sanskritik Itihas*, Vol. I, Editors Rasiklal C. Parikh and Hariprasad G. Shastri, (1972), p. 394.
2. Majmudar Chandramauli's article in the Souvenir of the Sankheda Sarvajanik Education Trust, (1972), p. 10.

The town has an old fort which was once held by the Jagirdar of Sankheda, Ganpatrao Gaekwad a descendant of Pilaji. A part of the fort wall was repaired by Subedar Manajirao Gaekwad in Samvat 1800. The outer wall of the fort is believed to have been constructed by the Babi Suba of Vadodara. This trouble some little fort long resisted the arms of the Gaekwad but at last surrendered in A. D. 1802.

There are two stone inscriptions in the town indicating its historical importance. One of them, kept in the public park near the Taluka Panchayat office, bears Samvat Year 1299 and the other bears Shak Year 1417. The later, written partly in Persian and partly in Sanskrit is found on the right hand side of the entrance door of the ancient fort. It states that a step-well or a reservoir had been built near the fort during the reign of Sultan Muzaffar Shah.¹ A part of the fort wall was repaired by Subedar Manajirao Gaekwad in Samvat 1800.

Historical facts indicate that the fort at Sankheda was built by Sultan Ahmedshah I in A. D. 1419. After having failed in his attempt to invade Champaner, the Sultan came to the hilly areas beyond Pavagadh, plundered some nearby villages and then came to Sankheda where he laid the foundation of a fort and a mosque. The Sultan found Sankheda, strategically important, as it was situated on a high level, from where a close watch could be kept over the surrounding forest areas.² According to another source, Ahmedasha, without any provocation, invaded Sankheda and inflicted heavy damage. The people are said to have surrendered to the Sultan without any resistance and the Sultan's army took away bag-fulls of real diamonds and other valuables. Many inhabitants were forcibly taken away as slaves and several women, 'as beautiful as peacock's feathers' were made prisoners.³ The Nagar Desais of Sankheda served as Vatan-dars during the Mughal and Maratha rule. They were known as 'Mehta'. Poet Ramkrishna Mehta was a Vaishnav Nagar of Sankheda. Several of his poems, especially his *garba* and *pad* are popular in Gujarat.

Sankheda is famous for its beautiful age-old handicraft of lacquer work on wooden articles and furniture like cradles, chairs, sofa-sets, etc. The polish and colour of the handicraft are fast and fascinating and last long without fading. This craft has achieved international reputation and its products are in great demand both in and outside the country.

Being the taluka headquarters, all taluka level offices are located in the town. There are 6 dispensaries, 2 child and maternity welfare centres, one Ayur-

1. Majmudar Chandramauli's article in the Souvenir of the Sankheda Sarvajnik Education Trust, (1972), p. 10-11.

2. *Ibid.*, p. 11-12.

3. *Gujaratno Sanskritik Itihas*, (Part-II) by Ratnamanirao Jote, (1954), p. 324-25.

vadic dispensary, and a primary health centre and family planning centre. There is also a veterinary hospital. Being a small town, it has a few recreational centres, viz., a cinema house and two public gardens. In one of these gardens are preserved old idols of Lakulish, Chammardhari, etc. Among places of religious importance may be mentioned the old temples of Jwalamukhi Mata with idols of Vishnu and Mahishasur Mardini, the Dashavatar, Dharmanath Mahadev with image of Shesh Narayan in black marble, Bhimnath Mahadev with old idols of Lord Ganesh, Parvati, etc., and the temple of Bala Hanumanji with stone idols of Nav Grahas and Bhairav. There are two mosques in the town.

This town has two pre-primary schools, four primary schools, two secondary schools for girls and boys, a Kumar Chhatralaya and an arts college. There are waterworks, a public library and a Stri Udyog Mandir. Banking facilities are provided by branches of (1) Bank of Baroda, (2) State Bank of India, (3) the Baroda Central Co-operative Bank and (4) the Urban Co-operative Bank. There is a rest house maintained by the District Panchayat.

Sathod -- Dabhoi Taluka (P. 3,011)

Sathod is a very ancient village believed to have been established 'in the middle of first millenium B. C. by people who made black and red pottery and used iron.' It was given as a gift by king Vishaldev to the Nagar Brahmins who had attended the *yagna* performed by him. The village was then known as Shatapadra. The Nagar Brahmins who had settled in this village came to be known as Sathodra Nagars. It is said that more than 1,600 families of these Nagars had settled here during the Rajput period. However, this prosperous town was destroyed by the Chavda rulers of Sankheda Mewas as they had developed enmity with the Sathodra Nagars. During the battle near Balnath Mahadev, many Brahmins were killed and a few escaped and settled elsewhere. The present village is said to have been developed on the ruins of the prosperous town of the past. The village has still an ancient temple of Hatkeshwar Mahadev which was built by Nagar Brahmins and which is now in a dilapidated condition.

On the outskirts of Sathod village towards the north, there are many memorial stones depicting bearded soldiers carrying shield and sword. There are twenty such stones believed to be of 12th or 13th century. There is an underground temple of Balnath Mahadev, which contains an idol of dancing Ganesh. There are ruined sculptures of Brahmaji indicating worship of the deity in this part of the district. There is an old *Vav* in dilapidated condition. Its six storeys are believed to be buried. There is a temple of Shikotar Mata near the *Vav*. There is also an old sculpture of Goddess Mahishashurmardini. Sathod has a primary school, a dispensary with family planning centre and a post office.

Savli—Savli Taluka (P. 11,334) : N. P.

Savli, the taluka headquarters, is situated at a distance of about 37 km. from Vadodara, the district headquarters. It is a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. It is connected by the State Transport buses with important centres of the district. Savli is the birth place of Shri Mota Maharaj, the well-known saint, spiritualist and reformer of Gujarat.

The village has a beautiful temple of Bhimnath Mahadev on a raised platform in the midst of a big and beautiful well-laid out garden just outside the town. The temple with an impressive entrance is an ideal specimen of the modern architecture. There is a seat (Bethak) of Shri Harirayji, the fourth descendent from Shri Mahaprabhu Vallabhaacharya with a beautiful idol of Lord Krishna standing on a lotus. The other temples are those of Bhathiji, Ramji, Ranchhodji, Swaminraayan, Ramdev Pir and Chamunda Mata. The Janmashtami fair known as Chamunda Mata fair, attracts a large congregation at the ancient temple of Chamunda Mata. There are two mosques of which the Juma Masjid is very old. There are two *chhatris* of Damaji and Pilaji Gackwads.

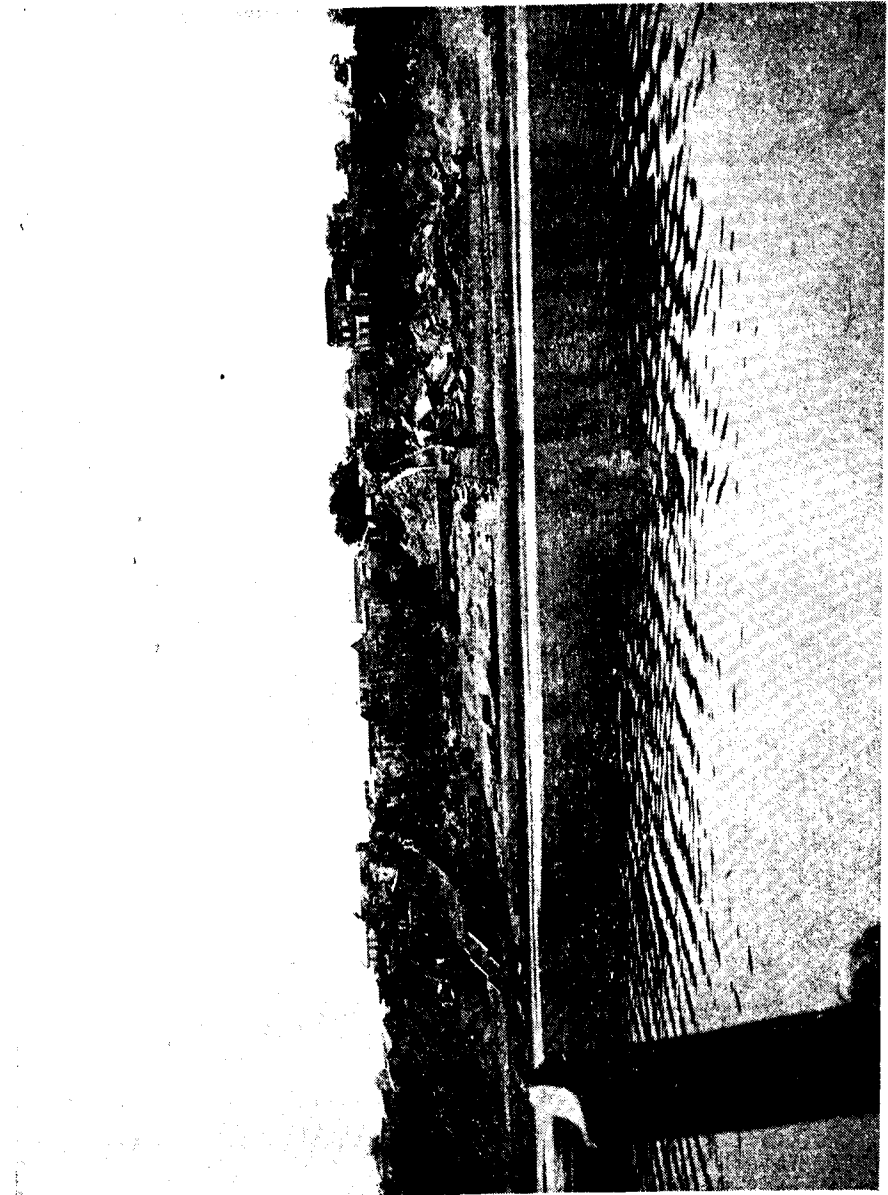
There is a large beautiful tank with a rest house on its bank. Plenty of lotuses are grown in the tank which earns for the Gram Panchayat a handsome amount from the sale.

Savli has a ginning factory, three saw mills, three rice mills and four tobacco curring units. It is a trading centre of foodgrains and cattle. The town has a Bal Mandir, four primary schools, three secondary schools, an arts and commerce college, a public library, a Homeopathic college and hospital, a maternity home, a health centre, a dispensary and a water works. The town has post, telegraph and telephone facilities. The town is electrified. There is a cinema house also. There is a youth club and a cultural association known as 'Saraswatam'. The town has branches of State Bank of India, Bank of Baroda, and the Vadodara District Co-operative Bank. Besides Savli has its own Urban Co-operative Bank.

The Homeopathic college known as the Gujarat Homeopathic Medical college was founded here in 1970 by Shri Hari Om Homeopathic Trust and is recognised by Government. It runs a four-year diploma course known as Diploma of Homeopathic Medicine and Surgery (D. H. M. S.). It is the first institution of its type in the whole of Gujarat State. The college had a total of 254 students (in 1975) several of whom came from outside the State.

Sevasi—Vadodara Taluka (P. 3,360)

Sevasi is 5 km., from Vadodara and is connected with it by the State Transport bus services. There is an ancient step-well known as Vidyadhar



A view of Narmada near Sinor

Vav with a stone inscription which states that it was built on Vaishakh Sud 12, Samvat 1543 by one Vidyadhar, son of Haridas during the reign of Mahmud Begda. There is a temple of Kal Bhairav in the village. Sevasi has a Balvadi, a primary school, a secondary school, a Panchayat dispensary and a post office. There is a Mahila Mandal which runs sewing classes and a Christian Mission which runs private industrial training classes. There are two saw mills in the village.

Shriportimbi Vaghodia Taluka (P. 355)

Shriportimbi is 6 km., from Vadodara City as well as from Kelanpur which is a railway station on the Jambusar-Chhota Udepur narrow gauge section of the Western Railway. There is an irrigation tank supplying water to about 500 hectares of land. The village has a primary school.

Sinor Sinor Taluka (P. 8,348) : 21° 55' N. 73° 20' E.

Sinor is a railway station on the Chandod-Malsar narrow gauge section of the Western Railway, situated on the bank of the river Narmada. It is 65 km., from Vadodara, the district headquarters. It is connected with Dabhoi by the major district road. The State Transport buses connect Sinor with important centres of the district.

Sinor is a beauty spot having a Government guest house overlooking the river Narmada. It is known for good mango trees. Along the bank of the river there are old Mahadev temples of Bhandareswar, Kedareshwar, Krushneswar, Narmada Mata and other Gods. The temples at Sinor, though smaller and less splendid than those at Chandod, are considered to be more sacred. Being the taluka headquarters, all taluka level offices are situated here. The village has a co-operative ginning and pressing society and an oil mill. There are branches of State Bank of India, Dena Bank and the Baroda District Central Co-operative Bank. Sinor has two primary schools, a secondary school, two *chhatralayas* for Backward Class students, two libraries, a primary health centre, a veterinary dispensary and a maternity home. It has a large population of Parsis who are well educated.

Songir—Sankheda Taluka (P. 538)

Songir is situated on the bank of the river Heran, about 10 km., east of Sankheda. It is about 4 km., from Bhatpur, a railway station on the Chhuchhapura-Tankhala narrow gauge section of the Western Railway. The State Transport buses ply here during fair season. There are the ruins of an old fort on a hill opposite the village. There is a stone quarry which makes grinding-stones and other useful articles from stone and crushes stone into metal and chips for export. The stones from this quarry were used in the building of the Gateway of India of Bombay and the Laxmi Vilas Palace of Vadodra. The narrow gauge section of the railway is extended from the Gantoli station upto the quarry spot.

There is a beautiful temple of Ranchhodrayji where a fair is held on every full-moon day. The village has a primary school. Copper and silver coins, belonging to the interim period between Kshatrapa and Valabhi era are found from here. These include indo-Sassaniam *Gadhaiya* silver coins were also discovered from the bank of the river Heran.¹

Tankhala—Nasvadi Taluka (P. 182)

Tankhala is the railway terminus on the Chhuchhapura-Tankhala narrow gauge section of the Western Railway, at a distance of 10 km., from Nasvadi. It is an important market place for coal, timber and other forest produce. The village has two ginning and one pressing factories. On Shivaratri festival, a fair with a congregation of 3,000 persons is held at the Tarkeshwar Mahadev temple. The village is electrified and is served by a primary school, a high school, a post office, a dispensary and a library.

Ten Talav—Dabhoi Taluka (P. 2,303)

Ten Talav is a railway station on the Chandod-Dabhoi-Malsar narrow gauge section of the Western Railway. It is 9 km., from Dabhoi, the taluka headquarters.

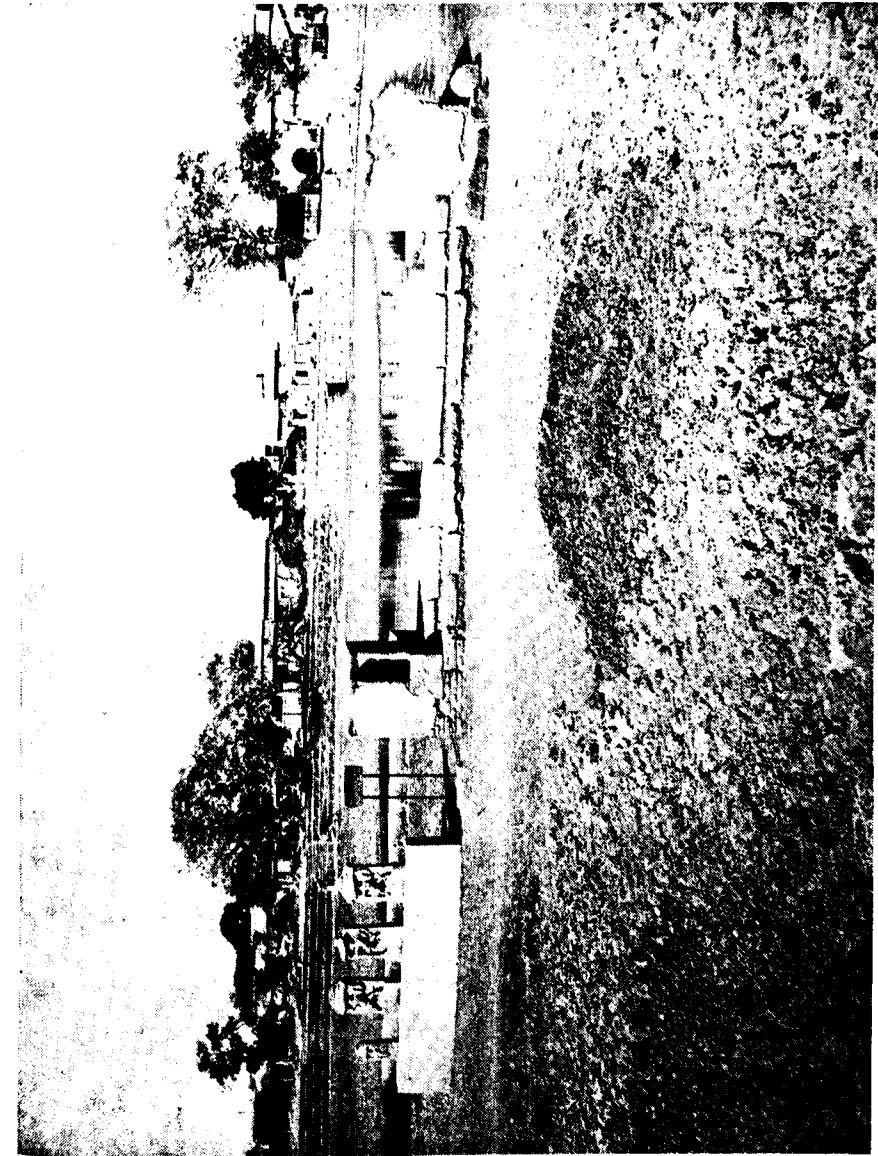
This place is famous for the Ten Talav or tank, octagonal in shape with stone steps up to the level of water. Tradition connects its construction with the name of Visaldev and the famous architect Hira Kadia² who erected the Hira Gate at Dabhoi.

There are memorial stones on the banks of the Ten Talav tank, on one of which is mentioned probably year of its construction *i. e.* the V. S. 1335. There is a temple of Pancheshwar Mahadev, which contains idols of Uma-Maheshwar and Varahi. There is also an old circular step-well in the village. The village has an oil mill, a rice mill, water-works, a primary school, a library, a post and two co-operative societies.

Tilakwada—Tilakwada Mahal (P. 2,900) ; 21° 57' N., 73° 35' E.

Tilakwada is situated on the confluence of the Narmada and the Men rivers. It is 23 km., from Nasvadi, a railway station on the Chhuchhapura-

1. Majumdar Chandramauli's article in the Souvenir published by Saakheda-Sarvajanik Education Trust, (1972), p. 13.
2. According to a legend associated with the Hira Gate, the architect Hira or Hiradhar had constructed this tank in memory of his beloved Ten. The King on coming to know that the architect had built this tank with stones from the Dabhoi fort, ordered to bury him alive in the fort wall. After some time when the Dabhoi fort needed minute repairs in its gate and arches, the local architects expressed their inability to execute the repair work saying that it could be done only by Hira, whom the king had ordered to be buried in the fort. The king repented for his folly. The architect Hira who was miraculously found alive in the wall then did the repair work in the gate and the arches.



Ten Talav

Tankhala narrow gauge section of the Western Railway, 17 km. from Chandod and 30 km., from Dabhoi. The State Transport buses connect Tilakwada with Vadodara. The Vadodara-Rajpipala State Highway passes by this village. Private boat service from Chandod to Tilakwada is also available. It is a business centre for the surrounding villages, the trade consisting of food-grains, cloth and cutlery. There are several units preparing bamboo baskets, winnowing baskets and earthen pots besides two Bidi manufacturing units also. There are old temples of Tilakeshwar Mahadev, Sapta Mata, Maninageshwar Mahadev, Narmada Mata and other gods and goddesses and one mosque. On the bank of the Narmada river there is a temple of Vasudevanand Saraswati, the *Guru* of Shri Rang Avadhoot of Nareshwar. A fair with a congregation of about 5,000 persons is held here annually on the Chaitri Punam.

Being the mahal headquarters all mahal level offices are located here. Tilakwada has two primary schools, a secondary school, a public library, a maternity home, a health centre, a dispensary, a veterinary centre and a post and telegraph office. Tilakwada has branches of the Baroda District Co-operative Bank and Bank of Baroda. The village has waterworks, electricity and telephone facilities.

Timbarva—Sinor Taluka (P. 2,079)

Timbarva is 15 km., from Sinor. It has become popular because of the find of a typical Gangetic Valley pottery of about 500 B. C. near this village. The small scale excavation at this site brought out a remarkable fact that this pottery is associated with a distinct pottery found in central and south India and called "Megalithic ware", on account of its apparent association with the famous burials of south India. This pottery has a black polish inside and red one outside suggesting the use of inverted firing. The absence of this type of pottery in Kathiawad and north Gujarat and its presence in the south Gujarat require to be explained.¹ Timbarva has a primary school and a post office.

Tundav—Savli Taluka (P. 3,760)

Tundav is about 5 km., from Savli and is connected with it by the State Transport bus service. It is on way to Champaner which was one of the important cities of Gujarat till 16th century and as such has witnessed many historical events. There is an ancient Shiva temple known as Kunvareswar Mahadev near the village. It is said that the temple was originally built during the 12th century and was said to have been destroyed by Mohammed Begada. A new temple is built on the old *jangha* (lower part

1. Archaeology of Gujarat: Article by Dr. B. Subbarao in the Indian Science Congress 42nd Session (Baroda 1955) Souvenir, p. 50-51.

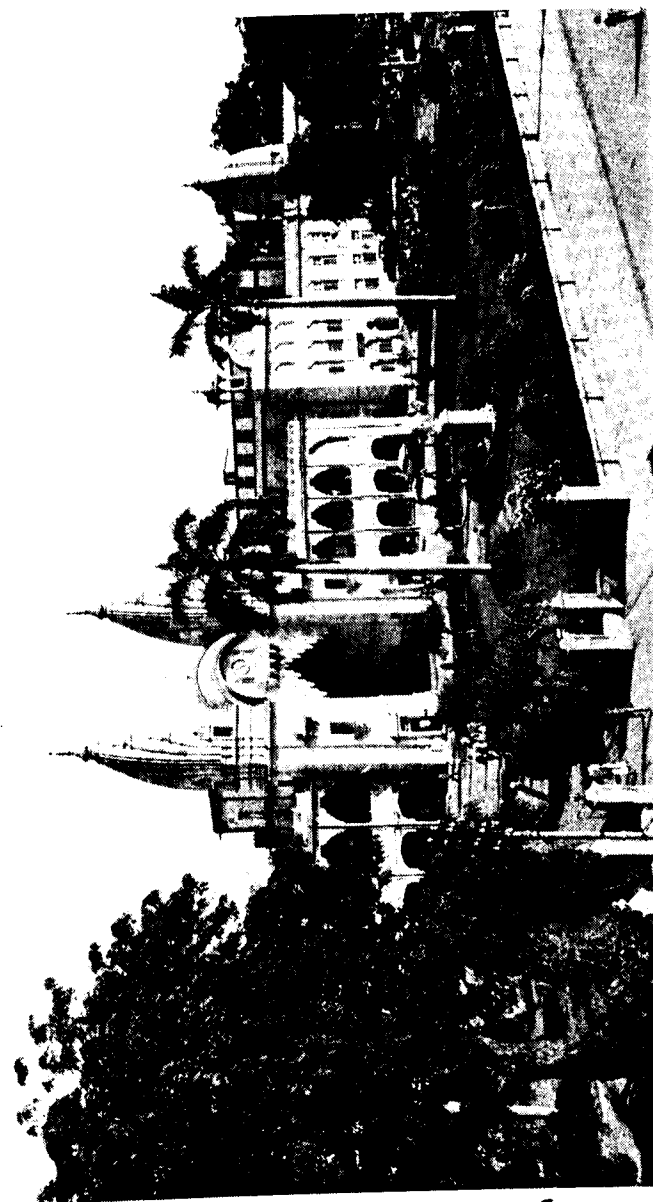
of the temple). Outside the main temple there are two large Shiva *lings* which also appear to belong to ancient period. Ruins of large-sized bricks used during the olden days are found from the nearby areas which indicate that this place must have existed in the distant past. Tundav has an old mosque known as Murtaza Masjid. There are two multi-purpose co-operative societies in the village. The village is electrified and has a primary school, a high school and a sub post-office.

Vadodara or Baroda City—Vadodara Taluka (P. 467,487); Mu. Corp., 20° 18' N. 73° 12' E.

Vadodara is considered to be one of the most beautiful and prominent towns of Gujarat. It is situated at the bifurcation of Bombay-Delhi and Bombay-Ahmadabad broad gauge sections of the Western Railway. It was the capital of the former Vadodara State.

“Archaeological research has proved that man was roaming in the environs of Baroda from pre-historic age. His tools have been discovered from here. This area of grass land and forest was occupied by civilized people around the closing centuries of the pre-Christian era. They developed nucleated habitation on the right bank of the river Vishwamitri. As this habitation was developed on or near the site having Ankota trees, it came to be known as Ankottaka (modern Akota).¹ This was a flourishing trade centre that had relations with the western world in the early centuries of the Christian era. Ankottaka developed one of its suburbs on the left bank of the Vishwamitri. This suburb was situated on more elevated ground, where banyan trees were existing. So this suburb was known as ‘the suburb near the banyan tree’ that is *Vadapadraka*. This suburb was in existence from atleast about the 5th century A. D. It was given as a gift to Chaturvedi Brahmans from Ankottaka by some king before 9th century A. D.”² The town rapidly out-grew the old administrative unit and in the 10th century, the Chaulukyas of Lata made it the administrative centre.³

1. Akota now forms part of Vadodara : At Akota was found a trefoil jar of bronze with the figure of the Greek God of Love, Eros, depicted as a seaman. Two clay seals in Hellenistic style, . . . were also found. Akota was the administrative headquarters of the Rashtrakutas (Please see Dr. Subbarao's article, *Baroda through the Ages* published in the Indian Science Congress (42nd Session) Souvenir (1955), p. 2-3.
2. Dr. R. N. Mehta's article on Highlights on Baroda in “*Profiles of a growing city*” (Baroda) 1971, p. 107.
3. The ancient town of Baroda was once called *Chandanvati* after the name of *Raja Chandan* of the Dor tribe of Rajputs. The name *Chandanvati* (the city of sandalwood) was subsequently changed to *Viravati* (the abode of warriors) and then again to *Vatpatra* (leaf of the Vad-Banyan-Tree) perhaps from its resemblance to that leaf. The well-known Gujarati poet of 17th century Kavi Premanand who belonged to Baroda calls it *Virkshetra*. Vadodara came to be pronounced as “*Baroda*” by the English travellers.



Khanderao Market built in 1906-07

From then onwards the town of Vadodara has maintained this position. As it continued to grow into a large town, it was glorified as a city, where the Solankis, the Vaghelas and the Sultans of Delhi as well as the early Sultans of Gujarat carried on their activities upto 15th century A. D. The struggle for power between the Mughals and the Marathas ended in 1732 A. D. when Pilajirao captured Vadodara. Except for a short break, Vadodara continued to be in the hands of the Gaekwad.¹ The greatest of the Gaekwad rulers Sayaji Rao III beautified Vadodara and made it one of the most attractive cities of Gujarat.

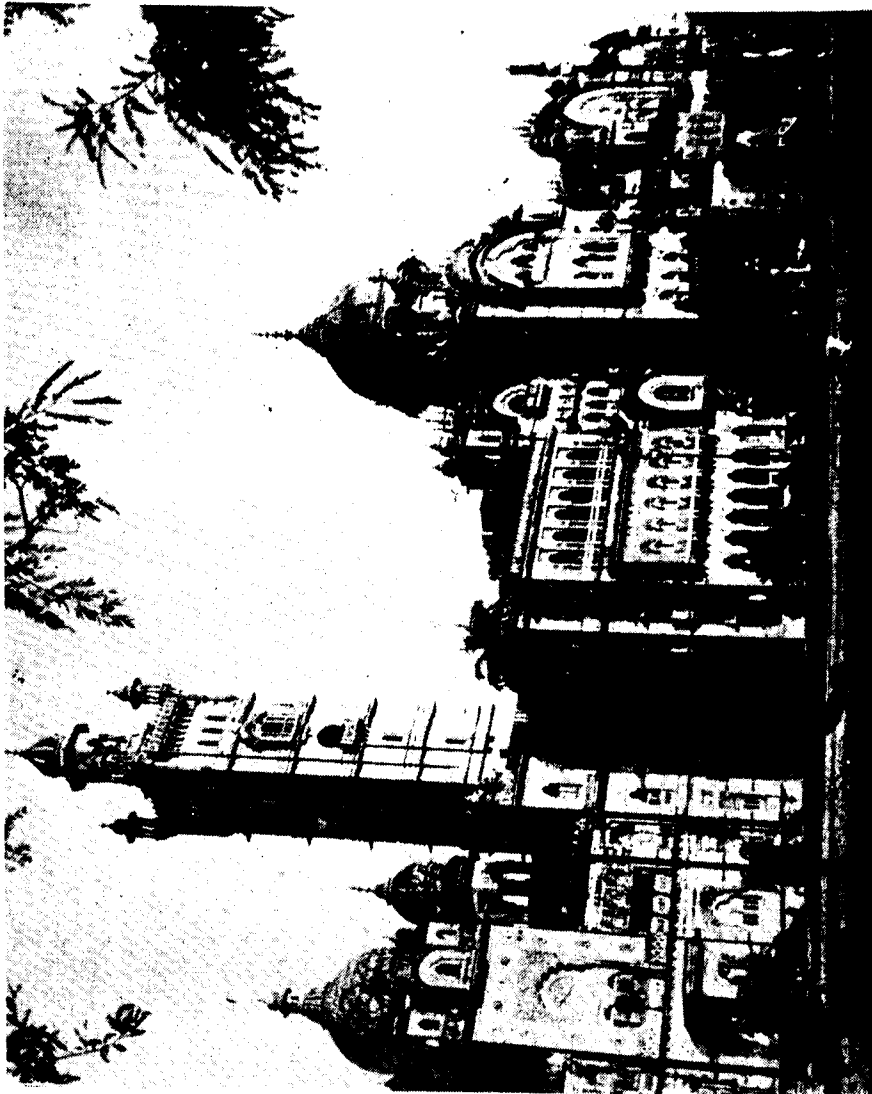
It would be interesting to describe the city as it was about a hundred years ago. The ruler of the State and his family stayed in the midst of the city in the area known as Rajwada near Mandvi. The elite of the city, the jewellers and the merchants stayed in their own *havelis* in the nearby streets though they had their business establishments on the main road. The city roads were also unmettalled and full of dust on which dogs and pigs walked and wandered at leisure. The city traffic was often obstructed by the fighting bulls. The city had tinned lamps lit by kerosene. The roads were sprinkled with water by the Bhistis who carried leather bags containing water. The bullock carts were introduced later on. On either side of the road there were small and tiny houses. Most of the house owners maintained their shops on the ground floor. The area near Mandvi was popular as vegetable market. The present Nyaya Mandir was once a vegetable market hall. The Khaderaao market was constructed later on. As there was no filtered water supply, the city atmosphere was dirty and unhygienic. The people used water from open wells and tanks as a result of which epidemics like cholera often visited this city. Most of the streets were closed at the other end, and the entrance doors which were strong enough to protect against the invaders remained closed at night.

The city had a number of *Akhadas* ((gymnasiums) during those days. There were no theatres but people assembled at a central place and recited *Bhajans*. The Ganapati festival was organised with pomp in the Raj Mahal. However, the most popular and exciting event was the Dassera festival procession when the Gaekwad ruler with his princes, the Dewan and other state dignitaries moved in the city on elephant followed by the army and infantry. People from distant places used to come to Vadodara to witness this annual pageant of pomp and show.²

Vadodara city has beautiful palaces, gardens, institutions for education and expanding industries. The Laxmi Vilas palace which has a beautiful garden with green surroundings and Italian statues, the Raj Mahal, the Makarpura palace built in Italian style, the Nazarbag palace, the Pratap

1. Dr. B. Subbarao's article on "Baroda through the Ages" in Indian Science--Congress (42nd Session) Souvenir (1955), p. 4.

2. Dr. Sumant Mehta, *Atma-Katha*, Vol-1, (1971), p. 8-12.



Laxmivilas Palace
Built in 1878-90 served as official residence of Gaekwad rulers

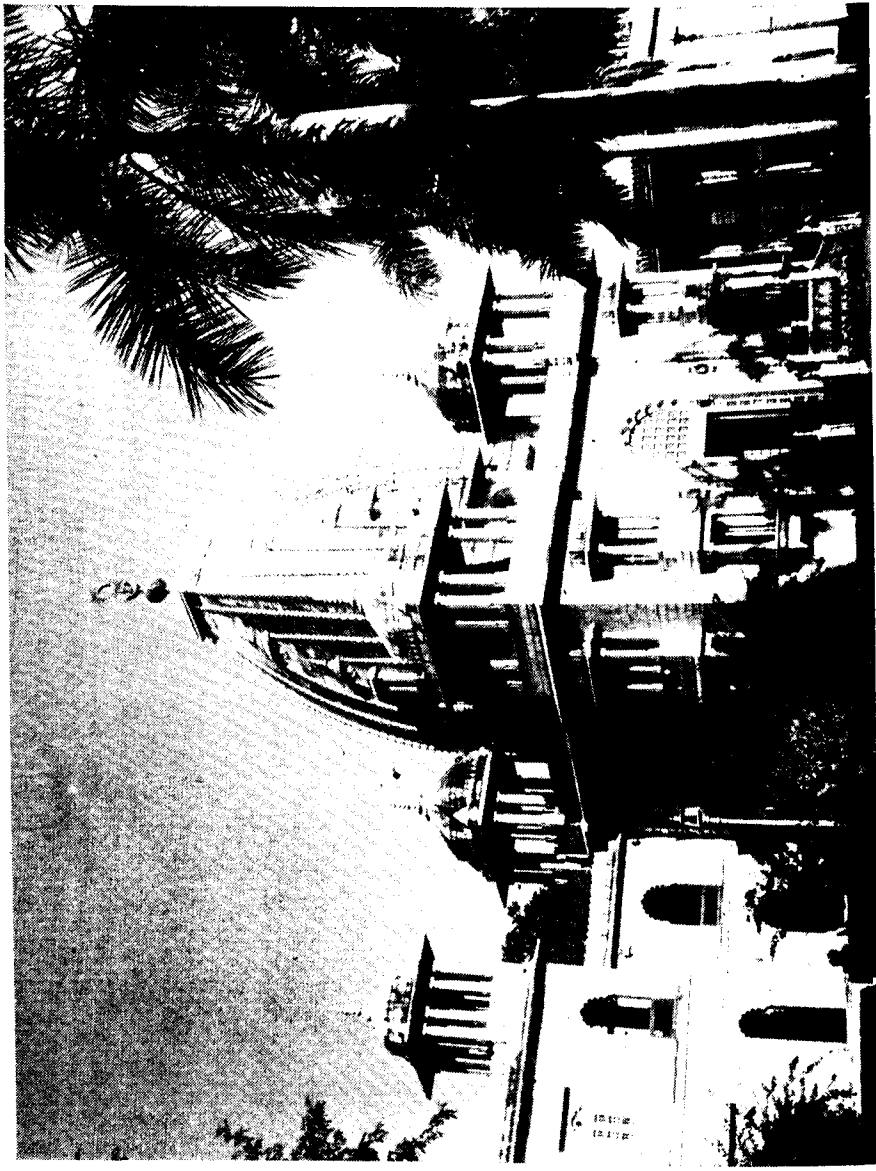
palace now housing the railway staff college and the Kirti Mandir (the hall of fame) having pictures painted by the great artist Nandalal Bose of modern Bengal school of painting and built in the sacred memory of Sayaji Rao III, the architect of modern Vadodara, are worth visiting. The other places worth seeing are the Jubilee garden, the Gandhi Nagargruh or the town-hall with the statue of Mahatma Gandhi in front, the beautiful umbrella which is a delightful resting place in the Lal Baug, the Central Jail built on the model of Paris prison, Navlakhi step-well, Bhadra Zarukha or Bhadra balcony (reminding one of the Mughal architecture) the lotus beneath which has been carved out of a single piece of stone, Deepak Open-air Theatre with a capacity of 5,000 spectators and equipped with all modern theatrical requirements, Nyaya Mandir, the Sursagar lake, the Jain temple in typical Jain style of architecture, the Suryanarayan temple, the Juma Masjid and the old mausoleum built during the sixteenth century by Emperor Akbar in memory of his general Kutbuddin. The temple of Shri Gyana Dakshina Moorty built by the E. M. E. School, Baroda is unique in design and construction. It is located amidst a Panchavati (five banyan trees) on a pedestal 75 feet by 75 feet. It has a Sabha-Mandap in the form of geodesic dome and a Shikhara (70 feet high) over a Garbha-Graha. The dome is made of wooden frames covered with aluminium sheets with a few ribs of iron and is supported by five iron pillars at the periphery. The Shikhara is an iron frame covered with aluminium sheets. The design is unique using only regular geometric figures. The temple has four entrances and can accommodate 1500 persons. The idol of Lord Shiva in the temple can be seen from three sides, over a wide area of the temple garden. The temple is a structure executed by Army technicians of the troops of Electrical and Mechanical Engineers, under the supervision and guidance of late Brig. A. F. Eugene (1920-1971) who was posted here as the first Commandant of E. M. E. School, Baroda in the year 1963. A humble and simple person endowed with dynamic vision, and ability, Brig. Eugene completely changed the face of the Baroda cantonment by creating architectural edifices of superb engineering. Besides constructing the temple, he prepared a rock garden of immense beauty with a collection of valuable and rare ancient statuary and antiques numbering over 100. The Sun idol is worth noting.

At Vadodara, Sakkar Khan's Masjid, a small gate in Moti Baug, and Bhao Jamberkar's bungalow in Raopura containing valuable paintings of 19th century are protected monuments. Of the many gardens in Vadodara, the Sayaji Baug has many and varied attractions, viz., a zoo, a museum, which is among the best in Gujarat, an art and picture gallery with a priceless collection of old masters and modern artists, a suspension bridge, a health museum, fantasy houses for children, a tunnel for children and a toy railway too.

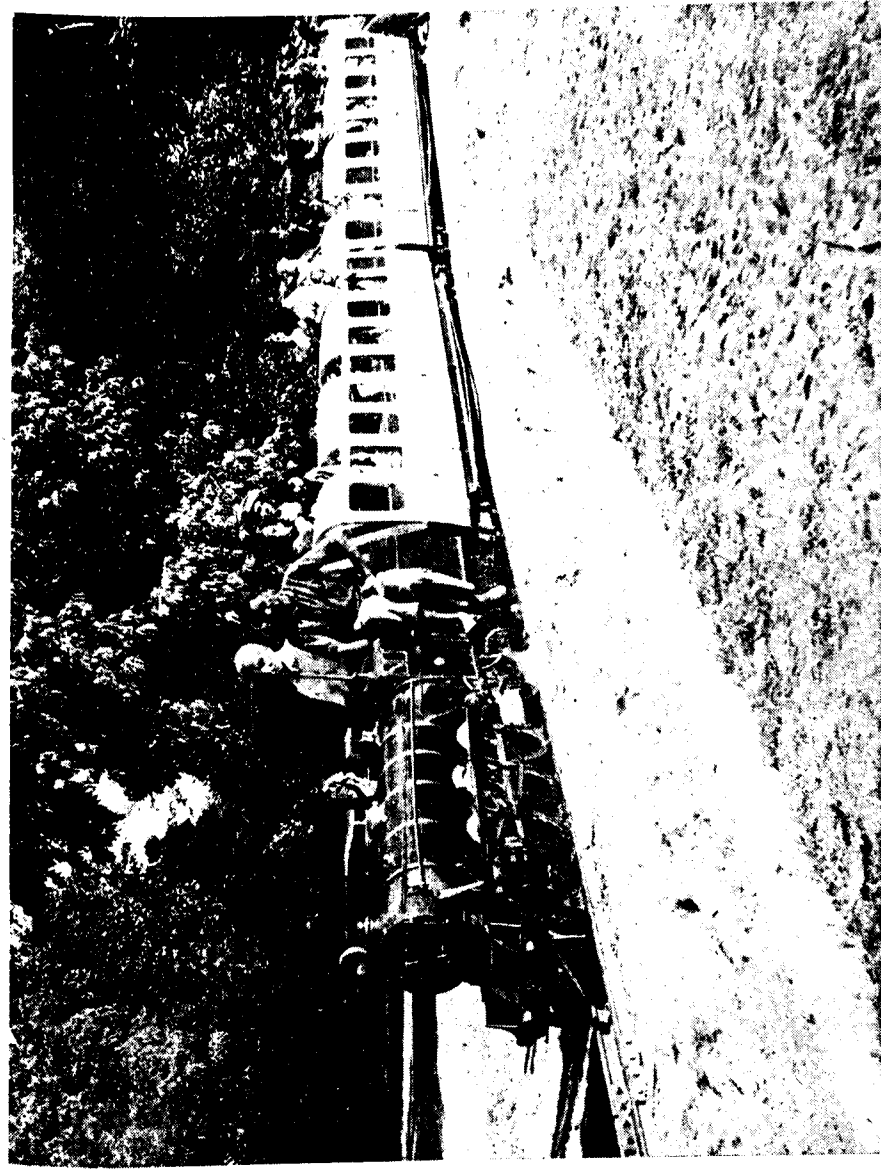
Of late, Vadodara has been taking long strides in the field of industrial development. There are four cotton textile mills and one woollen textile mill.



The Sur Sagar tank in the heart of the city



Kirti Mandir—a memorial to Gaekwad rulers (built in 1936)



Mini Train for children in the Sayaji Baug

Factories manufacturing chemicals claim such works as the Alembic Chemical Works and the Sarabhai Chemical Works, and others manufacturing engineering implements, agricultural implements and machinery like tractors, oil engines and pumps, spectacles, soap, rubber, colour, paints, edible oils, celluloid bangles, nylon stockings, iron furniture, hume pipes, wires and pegs, umbrella handles, buttons, chalk, glass etc., are the industries which have made good progress in recent times. There is an industrial estate wherein most of the blocks have been let out to small factories. It houses such industries as are engaged in the production of implements for engineering, parts of machinery, foundary articles, fruits-containers, medicines, cement, tiles, iron furniture, etc. There is a railway workshop also at Pratapnagar. The development of the petro-chemical complex near Vadodara is of particular significance. The Gujarat Refinery at Koyali and the Gujarat State Fertilizer Company have enhanced the importance of Vadodara and made it the industrial capital of Gujarat. The refinery, the fertilizer factory and the plants in the petro-chemical complex all play a significant role in the economy of the State.

The city municipality attained the status of a corporation in the year 1966. The corporation areas spread over 80 km. are distributed into 17 municipal wards.¹ The palatial building accommodating Khanderao Market was erected by Sayaji Rao III in 1906-07 and presented to the Municipality. Under its roof the citizens of Vadodara get almost all articles of shopping. The Municipal offices are also located in this building.

The aerodrome is situated outside the city near the village Harni. There is a Kalyan Kendra (Labour Welfare Centre) run by the Gujarat Kamdar Kalyan Board for the benefit, entertainment and encouragement of the labourers.

The Bhimnath Mahadev fair held on the last Monday of Shravan and the Sindhavai Mata fair on Aso Sud 8-9 draw a large number of visitors.

As regards educational facilities, Vadodara has 186 primary schools and 67 secondary schools. The Maharaja Sayajirao University, an important centre of higher education with the various faculties of arts, science, fine arts and technology, is famous for its collection of ancient Sanskrit manuscripts. The Home Science College for teaching domestic art to women with a blend of modern educational methods and Indian traditions, is the first of its kind in India. The Sanskrit Mahavidyalaya, the Experimental School, the Polytechnic, Sheth U. P. Ayurvedic Research Institute and the Oriental Institute are some of the unique features of the University. Thus Vadodara is one of the most important centres of education in Gujarat. Vadodara is the home of the great poets of Gujarati literature, Kavi Premanand and Kavi Nakar.

1. Central Gujarat Chamber of Commerce Patrika 14th Annual Number (1974), p. 5.

The offices of the Gujarat Secondary School Examination Board, the Gujarat Electricity Board, the Chief Conservator of Forests, Archaeological Survey of India, (Western Division), the Oil and Natural Gas Commission, (Western Division), etc. are located at Vadodara. The All India Radio has established its station near the suburb of Makarpura. Laxmi Studio, the first film-studio of Gujarat has also recently come up at Vadodara. 'The Loksatta', one of the prominent Gujarati dailies of Gujarat is being published from the city for the last two decades.

The city has three big public libraries, five hospitals, 19 public dispensaries and a T. B. Clinic. The Bank of Baroda has its registered office here. Besides, there are branches of (1) State Bank of India, (2) State Bank of Saurashtra, (3) Central Bank of India, (4) Bank of India, (5) Punjab National Bank, (6) United Commercial Bank, (7) Canara Bank, (8) Dena Bank, (9) Syndicate Bank, (10) Union Bank of India, (11) Bank of Maharashtra, (12) Indian Overseas Bank, (13) Indian Bank, and (14) United Bank of India, in addition to several co-operative banks. The city has 16 cinema houses.

Vaghodia—Vaghodia Taluka (P. 7,551) : 22° 18' N., 73° 24' E.

Vaghodia is the taluka headquarters and a railway station on the Dabhoi-Timba Road narrow gauge section of the Western Railway. It is connected with Vadodara by a pucca road. Being the taluka headquarters, all taluka level offices are situated here. Besides it has a high school, a public library, a veterinary dispensary, a hospital, a rest house and a Taluka Seed Multiplication Farm for the supply of better quality of seeds. The town has electricity, and telegraph and telephone facilities. Known for paddy, sugarcane and groundnut cultivation, there are several rice mills, and oil mills. It is also a trading centre for foodgrains, cloth, etc. The town is served by a branch of Dena Bank, a branch of the District Central Co-operative Bank and the Vaghodia Urban Co-operative Bank.

Varnama—Vadodara Taluka (P. 3,709)

Varnama is 12 km., from Vadodara, the taluka and district headquarters and is connected with it by the State Transport bus services. It is also a railway station near Vishvamitri on the Vadodara-Bombay Central section of the Western Railway. Varnama seems to be an ancient place from the old idols and stone inscription found here. The three storeyed ancient setp-well is now converted into water-works. In the wall of the step-well there are some idols of Solanki age. Among old temples, there are the Varuneshwar Mahadev with Chaturmukh idols of Brahmani and Virbhadr and a Shiva temple with ancient idols of Parvati and Vishnu. The door panels bear some lines written in Sanskrit which are not legible.

The village has a Balmandir, two primary schools, a secondary school, a public library, a post office, a Chhatralaya for the Backward Class students and a branch of the Baroda Central Co-operative Bank.

ANNEXURE—II

AKOTA BRONZES

Introduction

The ancient village *Ankottaka* (modern Akota village) probably existed in the beginning of the Christian Era. It became a famous seat of Jainism and Jain studies towards 5th/6th century A. D. In this central part of Gujarat, Jainism was in a flourishing state during the medieval period. The metallic images recovered from Akota heralds the great antiquity of Akota, a hamlet on the western outskirts of the modern city of Baroda, (Vadodara) situated on the right bank of the Vishvamitri river. The great cultural and artistic activities in central Gujarat under the leadership of Jain communities from the early centuries of Christian era to the late medieval period of the Indian History are established beyond doubt on the basis of the Akota hoard of Bronzes. Moreover, this hoard of Jain Bronzes provides an unique opportunity to study the evolution of art forms and traditions. According to this author, these images provide interesting studies in metallic art and development metal technology of Gujarat of the late Gupta, post-Gupta, Medieval and early post-medieval period. The Akota hoard was purchased, protected and saved by Shri U. P. Shah from being dispersed amongst dealers market in which case the evidence of the Western Indian School of Sculpture would have been practically ruined. These bronzes were presented by Shri Shah to the M. S. University of Baroda and later on, transferred to the Baroda Museum. Most of these bronzes are mutilated and/or fragmentary. However these valuable bronzes are now properly protected and preserved in the Baroda Museum.

The discovery of a hoard of metallic images made of copper and copper alloys belonging to Jain communities of Akota near Baroda has opened a new chapter in the history of metallic art of India in general and of Gujarat in particular.

The images have been described by 'Shah' in his monograph entitled "Akota Bronzes". The recovery of sixty-eight different objects have been reported so far. The hoard includes several varieties of images. Of them, *Rishabhanatha*, *Jivantswami*, *Parsvanatha*, *Sarasvati*, *Tri-tirthika* image of *Parsvanatha*, unidentified *Jina* Figures, *Ajitnatha*, *Chamaradharini*, *Ambika*, *Chaturvimsati-Patta* of *Rishabhanatha*, *Shattirthika* images *Rishabhanatha*; *Ashtatirthik* of *Parsvanatha*; *Chaumukha*, etc. are worth mentioning. Two incense burners, one with lotus shaped lid, and the other with an elephant-front one small bell, a mango-shaped object-are also interesting. The images are hollow cast and represent metal images of the *svetambara* Jain sect of central Gujarat. According to Shah the metal images from Akota represent the ancient and medieval metallic art of Gujarat. Shah has dated these images from the second half of the 5th century A. D. to the 11th century A. D.

A study of *Jainabhadra's Viseshavasyakamahabhashya* (a famous work on the Jain canons) and *Jinadasa Jani's* (A. D. 625-680) *Churni* literature (a veritable mine of information on art, architecture and culture of Gupta age) reveals that the great artistic activity amongst the Jains in western India was a natural development in the 6th/7th century A. D.

Before drawing definite conclusions on the metallic objects from Akota the following interesting images may be described from the view point of art appreciation in chronological order as considered by the author. Fifteen objects have been brought under critical study. For convenience, fifteen objects have been described as follows.

This standing Jina figure of *Jivantasvami* is having an inscription on the *dvi-mekhala-Pithika* type of pedestal. He wears a *trikuta* crown, ear-rings, armlets; bracelets and a *dhoti*. Two additional leaf ornaments decorate the upper ends of the ears of Jina. The *trikuta* crown is having a central larger leaf and two smaller side leaves. The *ekavali* round the neck, the *trikuta* crown, non-diaphanous type of *Dhoti* the *Kayotsarga* standing posture are the striking features. The broad shoulders of the body, the well-developed chest and some what thinner waist reminds us of the modelling art of the Gupta period. The beaded border of the oblong halo at the back of the Jina figure is interesting. The image is made of lead-bronze alloy. The inscription reads "Om; this (is) the divine gift, the image of *Jivantasvami* of the Jaina lady *Nagisvari* of *Chandra-kula*". Shah is of opinion that the characters of the inscription have close affinity with those on the Valabhi copper plates of the middle 6th cent. A. D. The author agrees to this date of the image.

The images is very attractive. Triple folded neck, the broad shoulders, long arms, gently swelling chest and slender waist are all characteristic features

The above mentioned two images of *Jivantsvami* are striking examples of the early western Indian school of art. Stylistically these two images stand out distinctly different from the rest of the images from Akota. Chronologically they probably belong to the Gupta period of Gujarat. The figures of *Jivantsvami* installed by *Nagisvari* shows a combination of the earthy and the dainty, of strength and elegance, of the sublime and the grotesque. The unique flavour of this image stems out of all these paradoxes. The large eyes with their almost bulging lids, the roundness of the face are striking stylistic features and probably represent early phase of the Gupta style. On the other hand the figure of *Jivantsvami* having four side cylindrical crown with a Chaitya-window ornament in front and lotus motif on sides represents the late phase of Gupta style. Moreover in this figure the body is shown more slender and sinuous and it is modelled to a mannered pose. The graceful round limbs and the certain lucidity and sensitiveness of body outline also reveal late phase of the Gupta style.

Very few metal images have survived which can be assigned to the Gupta period unquestionably. The two *Jivantsvami* sculptures under

reference stand as unique examples of metallic work of Gupta period in this medium.

(3) *Tri-Tirthika of Parsvanatha gifted by Sadhu Sarva-deva (Fig. 3)*

The central *Parsvanatha* figure is seated in *Padmasana* posture on a cushion seat above a raised platform constructed on a lower *Pitha*. Eight standing figures on the upper platform represent eight planets arranged on each side of the wheel (*dharmachakra*) and two deer. The representation of eight planets on the platform probably represent universal aspect of *Parsvanatha* who has transformed from Individual to the Universal quality of life. The wheel *Dharmachakra*, symbol represents the idea of perfection and truth, while deer symbol represents the idea of natural beauty which is associated with divinity and also extremity of tenderness shown towards animal life-symbolising *Ahimsa*. The snake hood behind and over the head of *Parsvanatha* probably suggests protection of the serpent king to meditating *Parsvanatha* from the attack of a demon. It also indicates his sublimity and nobility and his absolute purity and freedom from the snares of *Karma*. Two standing *Tirthankara* figures are placed on each side of the *Parsvanatha* who is having snakehood behind the head. The flamboyant oblong haloes behind the standing *tirthankaras* cover the entire length of the figures. The halo decorations alongwith umbrella like projection at the top are simple and indicate earliest form of presenting halo in an unsophisticated manner. The inscription on the back of this image reads: "Om this (the gift) of Sadhu Sarvadeva attached to the *vastika* of the teacher Nana (*Nanna*).". The stylistic features such as the earlier mode of representing the wheel and the planets on the pedestal and the simplified presentation of oblong halo indicate earlier date i. e. post-Gupta period probably 7th/8th cent. A. D. The image is mutilated at one side of the pedestal. It is made of an alloy known as bronze.

(4) *Ambika on Lion (Fig. 4)*

A great many *tantrik* goddesses have found a room in the Jain pantheon where the names of the goddesses of clearly *tantric* nature can be seen. We also see in the Jain literature the incorporation of the famous Shakta goddess, the 64 *Yoginis* in Jain pantheon. The *Svetambara* sect, which developed by assimilation and invention a *tantrika* system of their own actually represented the *tantric* element in Iconography. In the worship of the *Jinas* a notable feature is the recitation of the auspicious moments in the life of the great ones from the body of the Jain *Kalpasutra*. It is perhaps due to the ideas of auspiciousness, prosperity, wealth, etc., image like *Ambika* found a direct outlet in the Jain sculptor's art. The *Ambika* wears a *Patrabhanga-makarika* type of crown, an *ekavali* and *urah-sutra*. Her face is square, eyes are elongated, nose is long, chin is small. The torso of the body is

somewhat stunted. The flamboyant circular halo with a miniature *Jina* figure having umbrella like structure over the head is interesting. The inscription on the back is not clear.

The lion vehicle of the *Ambika* is shown in lying posture. The *Ambika* and her lion vehicle are placed on a plain four legged pedestal having beaded design. Stylistically, the image belongs to post-Gupta i.e. 7th/8th century A. D. It is made of an alloy known as bronze. The flamboyant circular type of halo with a miniature *Jina* figure having umbrella type of structure over head, the typical ear ornament, incised hair design just below the crown reveal the significance, culture and time-centred idea of the period when it was created.

(5) *Standing Sarasvati with a halo (Fig. 5)*

The image is mutilated. The standing *Sarasvati* wears an *ekavali*, a *Padma-kundala* at the ear-lobes; armlets and bracelets, a *trikuta* crown. Her lower garment is conspicuous by the presence of incised parallel lines with floral designs alternating with a triangular pattern and is held by a double *netra-sutra* acting as a girdle. The face of the *Sarasvati* is square, eye are long, while the forehead is broad. The scarf is having bead pattern. A lotus with a long curved stalk is held by the right hand. A scroll like object is held by the left hand. Stylistically, the image is probably the product of 9th century A. D. The image is made of an alloy known as zinc-bronze having high tin content.

The lower garment having line, geometrical and floral designs, the majestic style of wearing the scarf reflect the life and culture of the period. The sue of *Padma-kundala* at the ear lobes, the lotus design of the halo, the lotus pedestal, the lotus with long stalk are full of significance. The association of lotus pith *Sarasvati* symbolises a thought devoted to beauty, divinity and perfection. The *trikuta* crown over the head of *Sarasvati*, her turning downward nature, the bent of her body, the charming face and body modelling reveal the graceful attitude of the goddess. The *Sarasvati* image reveals to us the body of ideas in respect of economy, culture, life and significance of the period when it was created.

(6) *Tri-tirthika image of Parsvanatha (Fig. 6)*

The image is well preserved. *Parsvanatha* is flanked by two standing figures of *Tirthankaras*. He sits on an embroidered cushion placed on a lotus which is fixed on the *simhasana*. The *dharmachakra* symbol flanked by two deer is placed on a lotus which projects from the lower part of the pedestal. The *Tirthankaras* are having long eyes and round faces like the *Parsvanatha*. The oblong flamboyant haloes behind the standing *Tirthankaras* are very striking and their lower garments are conspicuous by the presence of floral and geometrical designs. The *yaksha* and *yakshi* *Ambika* alongwith circular

halo over their heads are shown in seated posture below the standing *Tirthankara* figures on the lotus. Eight human heads on each side of the *dharma-chakra* symbol represent eight planets. The head dress on the head of eight planets is interesting. Stylistically the image is totally different from the *Tirthika* of *Parsvanatha* gifted by *Sadhu Sarvadeva*. It is a product of later period, probably of 9th century A. D. The image is made of an alloy known as zinc-bronze.

(7) *Standing Parsvanatha gifted by Sravika of the Nivriti-kula (Fig. 7)*

Parsvanatha stand in *kayotsarga* pose on a lotus pedestal which is placed over the snake coils. The *naga* and *nagi* on each side of the lotus pedestal wear *ekavalis*. The *dharma-chakra* symbol and two deer on each side are shown on a lotus which projects from the lower part of the pedestal. Eight standing human figures represent eight planets. The inscription on the back of the pedestal reads, "Nivriti-kula-Sravik". The image was received in the museum in fragmentary condition.

The modelling of the body, the ovular face with long wide eyes and the snake coil supporting the lotus pedestal are very interesting features. The image is probably the product of 9th-10th century A. D. It is made of zinc-bronze alloy.

(8) *Standing Sarasvati without Halo (Fig. 8)*

The image is badly damaged at the waist part of the body. As a result the image is assembled in two pieces. Moreover, the pedestal part of the image and the halo are lost. The remnant of the lost halo is present behind the left ear. Out of the three figures of *Sarasvati* in the *Akota* hoard, one is inscribed, while other two figures are devoid of inscription. The *Sarasvati* figure under reference is decorated with *Kundalas*, necklace, *urahsutra* and a girdle with "long pendent falling on the left leg.". The arrangement of the scar and the long lotus stalk held by the right hand are interesting and indicate a later style. The style of the crown having five leaf like projections and the style of the ear-ornaments of this image are different from that of *Sarasvati* discussed in the foregoing pages. The style of lower garment (*Charanika*), the angular features, the head dress, neck and ear ornaments, and the modelling of the body suggested different style of later period, probably later part of 10th cent. A. D. The image is made of an alloy known as Zinc-Bronze having low tin content.

(9) *Unidentified Jina*

The *Jina* image is mutilated at the neck. The *jina* stands in *Kayotsarga* posture. He is having broad face with long nose and elongated meditative eyes. The *kambu-griva* (the neck marked by triple folds),

dakshinavarta (curled to the right) hair style, rounded shoulders, broad chest with the *Srivatsa* mark striking features of this image. Moreover, the double girdle with bead design, diaphanous lower garment (*alhoti*), the girdle band in the form of loop, and the vertical folds of the *dhoti* on left leg suggest a new style different from Gupta tradition. The image is made of an alloy known as Zinc-bronze with high lead content. It is likely that this image is a product of a period between 10th cent A. D. and 11th cent A. D.

(10) *Chamardharini (Fig. 10)*

The image is well preserved. The *Chamara* held in the left hand is however mutilated.

The *Chamardharini* gracefully stands in *tribhanga* pose on a carefully carved lotus pedestal. The hair of the lady is tied into a graceful bun which is decorated at the back with roses and in the front with the *chudamani* ornament made up of "three gold leaves inset with Jewels". The front hair is shown in beautiful waves and the bun on top is incised with crossed lines. The hair dress of this figure is very attractive and artistic. The face is square and the forehead is broad. The nose appears straight and pointed. Eyes are elongated. Lips are small but the lower lip is "full and pouting".

The modelling of the body is superb and full of graces. The body is gracefully decorated with ornaments which are profusely used in this figure. Each hand is decorated with two circular bracelets. A beautiful necklace with several pendants and an *Urah-Sutra* are present round the neck. The armlet is made of three gold leaves inset with jewels. Two profusely ornamented girdles are present across the hip. The *Uru-Jalka*, an ornament made of the stands of beads or pearls, is used for decorating thigh; and an ornamental chain between two legs hangs from the lower girdle. The lower garment is transparent showing diaphanous drapery effect. But it does not hang in space on two sides beyond the body thus showing departure from the *Mathura* and *Sarnath* schools. However the arrangement of the long hanging scarf held by right hand is interesting. The feet are decorated with "payal", and figures with rings. The coiffure of this female figure is noteworthy. The face is square in proportion. The lower body and the legs are relatively slim. Her shoulders are broad but dropping, her hands are in gesture, her feet have the litherness of a dancer, and her face has a flicker of an unsure smile. The whole form is full of limpid feminine charm. The ornaments do not cloud the main form; whereas the ornaments on the body increase the beauty of form. Every proportion of the body of this female figure is charming, artistic and is carefully carved. It is one of the finest female figures from *Gujarat*. The image is made of alloy known as lead-brass.

Stylistically this female figure reveals a unique blend of the Gupta art tradition, the art tradition of *Gurjar Pratiharas* of *Avanti* and *Kanauj*, the

stone sculptural tradition of central India, the metal sculptural tradition of the Chola period of South India and that of Eastern Pala style. Probably this synthesis took place during the glorious Solanki period of Gujarat towards 11th century A. D. when Gujarat witnessed one of the golden ages of India expressing the maturity of the western India school of art. The *Chamar-dharini* female figure stands as unique example of the western Indian school of the 11th/12th century A. D.

(11) *Rishabhanatha (Adinatha) (Fig. 11)*

The Jina figure possesses hair locks falling on the shoulders. This helps upto identify the Jina as the first tirthankara Rishabhanatha or Adinatha. The image is mutilated heavily. However, it represents one of the most beautiful tirthankara figures of the Akota hoard.

The pleasing countenance of this figure radiates peaceful trance showing spiritual bliss. The drapery is transparent revealing the modelling of the legs, but it does not hang in space on two sides beyond the body indicating a departure from the influence of the Mathura and Sarnath schools. The realistic folded drapery-effect of the lower garment is very interesting in this image. The lower garment (*dhoti*) reaching to the anklet is held in position by a cord with a central knot forming an arch. The central folds fall from below the central knot in zigzag pattern. The oval head, tapered limbs, broad rounded shoulders, thin waist, beautifully modelled torso, *kambur-griva* ("Couch-shaped neck") remind us of the Gupta tradition and canon. However the puffy outline of the thigh, angularity and stiffness of the body show affinity with the eastern Pala school of art. The eyebrows are prominently carved. The proportions of the body from ushnisha to girdle and from girdle to sole differ from those of other bronzes discussed in the foregoing pages. The aforesaid characteristics are absent in any other Tirthankara figure of the Akota hoard. The image represents one of the richest Tirthankara figure known in Gujarat. Moreover, it remains one of the finest male figures from Gujarat. From stylistic point of view, the image although bears influences of Gupta tradition of northern India. Pala tradition of eastern India, is a product of western Indian school of art of 12th/13th century A. D. The Solanki period of Gujarat probably reached the height in the achievement of metallic art. The images of *Rishabhanatha* (or *Adinatha*) and the *Chamar-dharini* of the Akota hoard are the unique examples of metallic art of the glorious Solanki period of Gujarat. Metallic art and metal technology were probably flourishing during the Solanki age when India saw one of the golden ages under Solanki rulers of Gujarat. Fine Arts, literature, technology and science flourished in Gujarat during the this period which no honest thinker can ignore.

(12) *Unidentified Jina gifted by the Merchant Rakshita (Fig. 12)*

The Jina figure is probably a part of big image having the attendant Yaksha and Yakshi as well as the Prabhavali and back stela which are lost.

The projected remnant of the lotus stalk on the left side of the pedestal and a nail on the back of the Jina suggest the existence of lotus stalk seat and stela in the original condition. The image represents unidentified seated Jina in *Padmasana, dhyana mudra*.

The lotus marks on the open palm of the hand, the hair style with ushnisha devoid of schematic curls, broad forehead, elongated broad swollen eyes, long but broad nose, long ears that hang above the shoulder, thick eye-brows shown by double lines, the style of keeping arms away from the torso, heavy neck fold showing *Kamburgriva*, high pedestal with eight standing planets in the form of human beings on each side of the wheel suggest a new art tradition of western India which probably developed in the post-medieval period of Gujarat. The back of the pedestal bears inscription which reads: "Om this is the pious gift of the Sadhu (Merchant) Rakshita..... arrived from Kaserahadra (?)". According to Shah, the inscription is written in characters of A. D. 600-650. However the author differs from Shah as far as the date of the image is concerned. Moreover the image is made of an alloy known as real brass. In view of style and material in composition the author is of opinion that the image is the product of 14th century A. D.

(13) *Ambika installed in the Vidyadharakula (Fig. 13)*

The Ambika sits on a lion in the *lalita* pose. The modelling of this female form is typical of the exaggerated style different from all the female figures belonging to the Akota hoard. It is characterised by exaggerated details. Ambika has a plump squarish face with full cheeks and cheen suggesting broad jaw. Her long eyes are heavy and swollen. Her ears are decorated with heavy coiled ear-rings which are very striking. Her eye-brows are thick shown by two carved lines. Her nose is broad at the end but pointed at the root. Her broad forehead is striking. The crown on the head of Ambika is elaborated. It is made up of *Trikutamukuta* with a big oval gem in the centre. a *gavaksha* motif is seen above the big oval gem in the centre of the crown. The halo is very attractive and takes the form of petal shaped prominent radiating rays surrounded by "a broad band of flames." The type of hallow as well as the crown shown in this Ambika figure is a type by itself and not present in any other female figures of the Akota hoard. A miniature figure of *Parsvanatha* sitting in *dhyanamudra* having snake-hood over the head is present on the top of the halo which is placed on the crossbar of the back seat. The two corners between the halo and the cross-bar are occupied by makara heads. Two lions are seen projecting on the outer sides of the vertical pillars which support the horizontal cross-bar. The Goddess is shown holding a mango bunch in her right hand and a fruit probably citron, in her left hand which also support the child on her left lap. Her body is profusely decorated with ornaments. She "wears a broad necklace, and wears an *ekavali*. The torso of the Ambika figure is "small and slender". The arms are kept away

from the torso. Her lower garment is conspicuous by the presence of "a design of broad bands interspersed with circular marks". The lower garment is held up by the girdle with central knot. A portion of the isolated girdle is seen fallen on the right thigh of the goddess. The Pitha or the seat is decorated by three bands of varied geometrical and floral designs; and the legs of the Pitha are enriched by a lotus pattern. The lion vehicle has bulging eyes and lolling tongue.

There is inscription which is partly decipherable at the back of the image. According to Shah, the character of the inscription suggests a date to the latter half of the 6th century A. D. The author however differs from Shah as far as the date of the image is concerned. The ornaments, the elaborate workmanship and a typical exaggerated style of this image suggest a late date.

The image is made of an alloy known as real brass. The style of the halo, crown, ornaments adorning the body, the heavy folds of the neck, modelling of the torso, the style of keeping arms away from the torso, drapery effect, decoration of the Pitha, the characteristic of the face—all suggest a typical art tradition free from the influence of Gupta art tradition of north India and the Pala art tradition of the eastern India. The image is probably the product of an art tradition that flourished in central Gujarat during the 15th century A. D. It is also possible that the image might have been brought to Akota from outside.

Of the fifteen objects mentioned above, seven possess inscriptions on the reverse. All the images are made of hollow cast.

Conclusion

From an examination and study of the fifteen metal objects belonging to the famous 'Akota hoard', it is possible to conclude that the ancient Akota had seen a continuous period of activities in metal art from 6th to 13th centuries A. D., and even in later periods (a few Akota figures under reference belong to late Medieval and post-medieval period); and during this long period, profound changes took place, not only in the artistic styles and motifs, but also in the compositions and techniques of fabrication of these metal objects. During the whole period of more than a thousand years, the metal workers of Akota probably undertook several metallurgical experiments for evolving new techniques and alloys suitable for making objects and idols of worship. The study further revealed the metal workers' efficient techniques of metal extraction, and skill in metallurgy, which they had probably evolved through experiments and experiences of several centuries from 5th/6th century A. D. onwards.

"In the above note Dr. Bhowmik has assigned dates of various bronzes which are not akin to those mentioned by Dr. U. P. Shah in his book entitled 'Akota Bronzes' and published by the Department of Archaeology, Bombay State in 1958. This may be due to the approach adopted by both Dr. Bhowmik and Dr. Shah. This note should therefore be read in the light of the fact that both have asserted correctness of their own individual reckoning on some of the bronze images described in the above note."

—Chief Editor,



Jivantasvāmī installed by Nagīśvārī



Jivantasvāmī



Tri-Tīrthica of Parśvanāth gifted by Sadhu Sārva-deva



Ambika on lion



Standing Sarasvati with a Halo



Tri-Tirthika image of Parsvanatha



Standing Parsvanatha gifted by Sravika of the Nivriti-kula



Standing Sarasvati without Halo



Chamardharini



Unidentified Jina



Rishabhanath (Adinath)



Ambika installed in the Vidyadharakula

GLOSSARY

A

<i>Acharya</i>	..	..	A religious head ; a preceptor.
<i>Adhik</i>	..	..	Intercalary month occurring once in three years in Hindu calendar.
<i>Adivasi</i>	..	..	An aborigine, a tribal
<i>Ahimsa</i>	..	..	Non-violence
<i>Akhada</i>	..	..	Gymnasium
<i>Akhyan</i>	..	..	Mythological story
<i>Akhyankar</i>	..	..	Person who tells mythological or religious discourses.
<i>Amavasya</i>	..	..	The last day of dark lunar fortnight
<i>Amber Charkha</i>	..	..	A spinning wheel operated by hand
<i>Amin</i>	..	..	An officer appointed by the Subedars of Maratha Government
<i>Ankada</i>	..	..	A number, a figure, a fixed sum of the amount to be collected as revenue
<i>Ankadabandi</i>	..	..	A type of revenue system wherein lands were leased out for cultivation in villages for the payment of a fixed sum called <i>Ankada</i>
<i>Annakshetra</i>	..	..	A charitable institution where free meal is given to needy and poor persons every day
<i>Antyaja</i>	..	..	A member of Scheduled Caste
<i>Antyaja School</i>	..	..	School for Scheduled Caste students
<i>Apabhramsa</i>	..	..	One of the Prakrit languages, usually corrupted words
<i>Ata-Pata</i>	..	..	A Type of Indian team game
<i>Athada</i>	..	..	A numerical figure of 'eight'
<i>Aval Karkun</i>	..	..	A Head Clerk under the Mamlatdar

B

<i>Babashai</i>	..	..	Currency of the former Baroda State and adjoining territories before 1900 A. D.
<i>Bajri</i>	..	..	Indian Millet, name of a cereal (<i>Panicellaria spicatta</i>)
<i>Bandobast</i>	..	..	Strict vigilance by police party at the fairs or public meetings.
<i>Barkhali</i>	..	..	Alienated land
<i>Bhagbatai</i>	..	..	Crop-share system of land revenue, a system of revenue management under which certain share of the produce was taken in kind
<i>Bhajan</i>	..	..	Devotional song
<i>Bhajan mandali</i>	..	..	A band of devotees singing devotional songs in praise of some deity
<i>Bhavai</i>	..	..	Folk drama performed generally by itinerant troupers
<i>Bhayat</i>	..	..	A cadet of the ruling family
<i>Bhogasan</i>	..	..	A picture of sportive dalliance
<i>Bhodan</i>	..	..	Voluntary gift of land started by Acharya Vinoba Bhave in the year 1954
<i>Bidi</i>	..	..	An indigenous cigarette made from Timru leaf and tobacco
<i>Bigha</i>	..	..	A unit for measuring land, a square measure equal to about one third of an acre
<i>Bighoti</i>	..	..	Cash assessment

C

<i>Chaddar</i>	..	..	A bed-sheet
<i>Chakariat</i>	..	..	Land assigned for remuneration of village or Darbar service

C—contd.

<i>Chappals</i>	..	..	Sandles
<i>Chautaras</i>	..	..	A raised platform, generally a square, where the village people assemble
<i>Chauth</i>	..	..	One-fourth of the village revenue recovered under the Maratha rule
<i>Chela</i>	..	..	A disciple
<i>Chhatralaya</i>	..	..	A student hostel
<i>Chhint</i>	..	..	A printed cloth
<i>Chokdi</i>	..	..	Check design
<i>Chora</i>	..	..	A public place in a village where a village accountant (<i>Talati</i>) holds his office and where meetings of gram panchayat are held
<i>Chori</i>	..	..	The square enclosure wherein the bride and the bridegroom take ceremonial rounds of the sacred fire during performance of the marriage ceremony
<i>Chor-police</i>	..	..	The name of an Indian game

D

<i>Dandiya-ras</i>	..	..	Circular folk-dance with sticks
<i>Dan-lila</i>	..	..	The play and pastime of Shri Krishna for collecting the toll-tax on curds
<i>Darbargadh</i>	..	..	Residence of a ruler, a royal palace
<i>Darbar Kharach</i>	..	..	The expenditure sanctioned for the ruler
<i>Dargah</i>	..	..	Tomb of a Muslim saint
<i>Darshan</i>	..	..	Sight or glimpse of a deity
<i>Datta Jayanti</i>	..	..	A festival falling on the 15th day of Hindu month of Margashirsh, observed by large followers of Guru Dattatraya as the latter's birthday at Nareshwar

D—contd.

<i>Desai</i>	..	..	The chief hereditary revenue officer in a district
<i>Devasthan Land</i>	..	..	Land granted by Government free of revenue or at concessional assessment for maintenance of a temple
<i>Dhandhana Mahajan</i>	..	..	A body of leading businessmen
<i>Dharam</i>	..	..	A religion
<i>Dharmada</i>	..	..	Cash allowances that have been granted and held for charitable purposes
<i>Dharmashala</i>	..	..	A public resting place for Hindus in a town or village, a rest-house
<i>Dhol</i>	..	..	A drum
<i>Dhoti</i>	..	..	A white waist cloth loosely hanging on knees worn by males
<i>Dukan</i>	..	..	Place where financial transactions were conducted in Baroda before commencement of regular banking

E

<i>Ekadashi</i>	..	..	Eleventh day in each fortnight observed as a fast by devout Hindus
<i>Ek Ankadia</i>	..	..	A form of revenue system in which the amount of <i>Ankada</i> or land revenue was fixed

F

<i>Farsan</i>	..	..	Spiced eatables made of gram flour and fried in oil
<i>Farta Ankadia</i>	..	..	A form of revenue system in which the amount of <i>ankada</i> or land revenue varied
<i>Fauzdar</i>	..	..	A subordinate police officer

GLOSSARY

F—contd.

<i>Fauzdari</i>	..	..	Criminal and civil cases performed by police sub-inspector or a police officer
<i>Ful-vel</i>	..	..	A flower and creeper design

G

<i>Gadi</i>	..	..	A hereditary royal seat
<i>Gadiana</i>	..	..	A weight equal to half a tola or 52 grains
<i>Garba</i>	..	..	A sportive dance performed by women during Navratri festival in the month of Ashwin (October) lasting for nine or ten days
<i>Garbis</i>	..	..	A sportive dance performed by a group of men
<i>Gaushala</i>	..	..	A cow-shed
<i>Gedi-dada</i>	..	..	Name of an Indian game resembling hockey played by boys
<i>Gharania</i>	..	..	The term is applied to such land which has been mortgaged
<i>Gharkhed</i>	..	..	Land under personal cultivation of land holder
<i>Gharthal land</i>	..	..	A type of open land which is used for construction of house
<i>Ghat</i>	..	..	A place on the bank of a river which is used for washing clothes, bath, etc.
<i>Ghee</i>	..	..	Clarified butter
<i>Gilli-danda</i>	..	..	A country game of tripstick played by children
<i>Girasdar</i>	..	..	Holder of <i>girasdari</i> land
<i>Gopi</i>	..	..	Female cowherd
<i>Gor</i>	..	..	A family priest, a religious preceptor
<i>Gotra</i>	..	..	Clan, Lineage

G—contd.

<i>Gotraj</i>	..	..	Born in the same family, the deity of a family
<i>Gram Panchayat</i>	..	..	Village council
<i>Gur</i>	..	..	Jaggery
<i>Guru</i>	..	..	A preceptor

H

<i>Hamal</i>	..	..	A labourer, a coolie
<i>Hartal</i>	..	..	A strike
<i>Hu-tu-tu (Kabaddi)</i>	..	..	The name of an Indian team game

I

<i>Ijara</i>	..	..	Monopoly
<i>Ijardar</i>	..	..	One who obtains exclusive possession or control over land or trade, a contractor, one who farms the revenue of a village or country

J

<i>Jagir</i>	..	..	An estate, land granted to land holder by chiefs for some special service rendered to the State
<i>Jagirdar</i>	..	..	One who holds a <i>Jagir</i>
<i>Jamabandhi</i>	..	..	Settlement of land revenue
<i>Jamadar</i>	..	..	Police constable
<i>Jamat</i>	..	..	Community
<i>Jiwai</i>	..	..	Land given rent free for maintenance or in lieu of services rendered to the ruler or chief
<i>Jiziyah</i>	..	..	A tax paid by non-Muslim population during the rule of Mughal Emperor Aurangzeb
<i>Jowar</i>	..	..	Name of cereal (<i>Sorghum vulgare</i>), coarse variety of crop

J—contd.

<i>Judi</i>	..	..	Quit-rent
<i>Jyestha</i>	..	..	The eighth month of Hindu calendar
<i>Jyotish</i>	..	..	Astrology

K

<i>Kabjedar</i>	..	..	Holder of land
<i>Kacheri</i>	..	..	A court, an office
<i>Kala Bhavan</i>	..	..	An institution imparting education in technical courses
<i>Kalambandi</i>	..	..	An agreement or condition of lease regarding land by two-independent chieftains
<i>Kamdhenu</i>	..	..	A celestial cow which is said to grant everything longed for
<i>Kandora</i>	..	..	A girdle
<i>Kankar</i>	..	..	Small pieces of stones used for making road, a pebble
<i>Kanku</i>	..	..	Red turmeric powder applied on forehead by a Hindu woman, whose husband is alive
<i>Kansar</i>	..	..	A sweet preparation of wheat flour, mixed with clarified butter and sugar or jaggery
<i>Kanya</i>	..	..	A bride
<i>Kanya Chhatralaya</i>	..	..	Students' hostel for girls
<i>Kanyadan</i>	..	..	Giving of a daughter in marriage to the bridegroom
<i>Kapas</i>	..	..	Cotton
<i>Karbhari</i>	..	..	A manager, an administrator or Diwan in former States

K—contd.

<i>Karma</i>	..	..	An action, a religious action or ceremony
<i>Katha</i>	..	..	Religious discourse
<i>Kazi</i>	..	..	A Muslim Judge during the Muslim rule
<i>Kelavani Mandal</i>	..	..	Society conducting educational activities
<i>Khalsa land</i>	..	..	Agricultural land held directly from the State or Government
<i>Khandi</i>	..	..	A weight of 20 local maunds
<i>Kharadi</i>	..	..	A turner
<i>Khatedar</i>	..	..	Land holder, an occupant
<i>Khedut</i>	..	..	A farmer
<i>Khedut Parishads</i>	..	..	Farmers' conferences
<i>Kho-Kho</i>	..	..	A game of getting up from a sedentary posture and catching persons from opposite party
<i>Killedar</i>	..	..	A watchman who keeps vigilance in jail after Sunset
<i>Kirtan</i>	..	..	A programme of devotional songs in praise of God
<i>Kodia</i>	..	..	An earthen cup shaped lamp holding oil and a wick
<i>Kodra</i>	..	..	A species of corn used for food by the poor
<i>Kos</i>	..	..	A leather bucket used for lifting water from well
<i>Kotar</i>	..	..	A ravine
<i>Krishna lila</i>	..	..	A sportive play in the life of Krishna
<i>Kusti</i>	..	..	Wrestling
<i>Kusti Dungals</i>	..	..	Wrestling competitions

L

<i>Laher</i>	..	..	A wave
<i>Lajjahoma</i>	..	..	This is one of the most important rituals of the Hindu marriage ceremony wherein the scattering of fried rice of grain denotes a symbol of fruitfulness and prosperity, while the wife scatters grains. she prays for her husband's long life
<i>Lal-liti</i>	..	..	Alienations which were marked with red ink in the old registers
<i>Langadi</i>	..	..	An Indian game in which a player on one leg limps forward and tries to catch his opponents, who move within the prescribed limits
<i>Langoti</i>	..	..	A loin-cloth
<i>Lathi</i>	..	..	A staff, athletic stick

M

<i>Ma-bap</i>	..	..	Parents (Guardian)
<i>Mahajan</i>	..	..	The head of a caste, head of a trade or business guild
<i>Mahal</i>	..	..	Sub-division of a district; smaller than a taluka
<i>Mahalkari</i>	..	..	A revenue officer in charge of a mahal
<i>Mahila Mahavidyalaya</i>	..	..	Women's college
<i>Mahuda</i>	..	..	A kind of plant, (<i>Madhuka indica</i>)
<i>Malkhamba</i>	..	..	A perpendicular pillar on which physical exercise is done by athletes
<i>Malmal</i>	..	..	Muslin
<i>Mamlatdar</i>	..	..	A revenue officer in charge of a taluka

M—contd.

<i>Mandal</i>	..	..	An institution or organisation formed by a group of persons with some specific purpose
<i>Mandir</i>	..	..	A temple
<i>Matruka</i>	..	..	Mother goddess worshipped by the Hindus
<i>Mazamudar</i>	..	..	Hereditary District Officer enjoying alienated lands and cash allowances in the same manner as Desai
<i>Mehvas</i>	..	..	A land revenue system prevalent in refractory area or a village
<i>Minda</i>	..	..	Dots
<i>Mukhi or Patel</i>	..	..	The Police Patel of a village, a village headman
<i>Mulukgiri</i>	..	..	Land raiding system under the Marathas wherein annual armed expeditions were conducted for exacting tribute from chiefs in Kathiawad
<i>Munsiff</i>	..	..	A Subordinate Judge
<i>Muth</i>	..	..	A kind of pulse, a kind of bean (<i>Phaselous aconitifolius</i>)
N			
<i>Naeb suba</i>	..	..	An Assistant Governor or Revenue Commissioner of a province
<i>Nagarsheth</i>	..	..	A leading citizen in a city or town
<i>Nakas</i>	..	..	Custom check-posts
<i>Nala</i>	..	..	Causeway
<i>Nazarana</i>	..	..	A present, gift
<i>Nikah</i>	..	..	A marriage ceremony for Muslims propounded by <i>Quran</i>
<i>Nirvan</i>	..	..	Demise, attainment of the highest spiritual truth

<i>Pahelwan</i>	..	..	A wrestler, an athlete
<i>Pali</i>	..	..	A unit of weight
<i>Paliyas</i>	..	..	Memorial stones raised in honour of heroes who laid down their lives for some sacred causes
<i>Pan</i>	..	..	Betal leaf
<i>Panch</i>	..	..	A committee
<i>Panchtirth</i>	..	..	Visit to five different sacred places
<i>Pandit</i>	..	..	A scholar
<i>Panigrahana</i>	..	..	Acceptance of the hand of the bride by the bridegroom in the marriage ceremony
<i>Panjrapole</i>	..	..	An asylum for dried up decrepit and useless cattle
<i>Paragana</i>	..	..	A smaller administrative division
<i>Parawana</i>	..	..	A licence
<i>Pasaita</i>	..	..	A village servant who is assigned land as remuneration by the ruler
<i>Patel</i>	..	..	A village headman
<i>Pathashala</i>	..	..	A school, an oriental school
<i>Pathikashram</i>	..	..	A public guest house
<i>Pavali</i>	..	..	A unit of weight
<i>Pedhi</i>	..	..	A firm conducting monetary transactions
<i>Phenta</i>	..	..	A turban
<i>Pir</i>	..	..	A Muslim saint
<i>Ponkhvun</i>	..	..	To receive or welcome the bride, the bridegroom or both with the traditional ceremonies
<i>Potedar</i>	..	..	A banker in former Baroda State

P—contd.

<i>Prakrit</i>	..	..	A language corrupted from Sanskrit
<i>Pucca</i>	..	..	A road made of cement concrete or bricks
<i>Pujari</i>	..	..	A person in charge of a temple for the performance of rituals
<i>Purana</i>	..	..	Scriptures
<i>Puranik</i>	..	..	A person well-versed in the scriptures
<i>Purohit</i>	..	..	Ritualist, the family priest
<i>Pustakalaya</i>	..	..	A library
R			
<i>Rag-Ragini</i>	..	..	Musical mode
<i>Ras</i>	..	..	A kind of folk-dance initiated by Lord Krishna in Gokul
<i>Ras-lila</i>	..	..	Folk-dance played by Shri Krishna with cowherd women at Vrindavan in Uttar Pradesh
<i>Ras-mandali</i>	..	..	A band of persons playing the sportive dance
<i>Rati</i>	..	..	The seed of the <i>Arbus precatorius</i> plant used as smallest weight in weighing precious metal
<i>Rishi (Rushi)</i>	..	..	A sage
<i>Ryot</i>	..	..	A farmer, a cultivator
S			
<i>Sabhagriha</i>	..	..	An assembly hall
<i>Sabha Mandap</i>	..	..	A meeting hall or the assembly hall in front of a temple
<i>Sadar Nyayadhish..</i>	..	..	A supreme court of justice
<i>Sadavrat</i>	..	..	A charitable institution where free meal is provided daily to needy persons

S—contd.

<i>Sahitya</i>	..	..	Literature
<i>Samudra Manthan</i>	..	..	Legendry churning of sea by Gods and Demons in quest of nectar
<i>Sangh-Vyayam</i>	..	..	A group exercise
<i>Sanyasta</i>	..	..	Asceticism, renunciation of the world
<i>Saptapadi</i>	..	..	Seven steps taken together by a bride and a bridegroom round the sacrificial fire during the marriage ceremony which makes the marriage complete and irrevocable among Hindus
<i>Sarai</i>	..	..	A rest house for Muslims
<i>Sardar</i>	..	..	A chief, leader
<i>Saree</i>	..	..	Hindu women's chief garment draped round the body
<i>Sarkar</i>	..	..	Divisions of the kingdom during medieval period
<i>Sarpanch</i>	..	..	Head of Village Panchayat
<i>Sarvajanik Pustakalaya</i>	..	..	Public library
<i>Sathi</i>	..	..	Permanently attached servant employed by an agriculturist
<i>Sathmari</i>	..	..	A bull fight, an elephant-fight; a favourite pastime of former rulers
<i>Sati</i>	..	..	A chaste and virtuous woman
<i>Sat-tali</i>	..	..	The name of an Indian game
<i>Seer</i>	..	..	A unit of weight equal to 40 tolas
<i>Seva Kendra</i>	..	..	Service centre
<i>Shahukar</i>	..	..	A money-lender
<i>Shastra</i>	..	..	The Hindu scripture or a sacred book
<i>Shastri</i>	..	..	A person well-versed in the Shastras (Hindu classics)

S--contd.

<i>Shikari</i>	..	..	A hunter
<i>Shirastedar</i>	..	..	A head-clerk in Collector's Office
<i>Shishya Vachan</i>	..	..	Model reading
<i>Shraddha</i>	..	..	A ceremony performed for the salvation or propitiation of the departed soul
<i>Shresthi (Sheth)</i>	..	..	The head of a mercantile guild
<i>Siyashahi</i>	..	..	Currency prevalent in the former Baroda State before 1902
<i>Sukhadi</i>	..	..	Allowances, perquisites
<i>Sultan</i>	..	..	A Muslim monarch, a king
<i>Swayambhu</i>	..	..	Self-emerged

T

<i>Tahsildar</i>	..	..	A collector of revenue, a revenue officer of a district or taluka
<i>Talati</i>	..	..	A Village Accountant
<i>Thana</i>	..	..	A station, sub-division of a district under a civil authority.
<i>Thandar</i>	..	..	An officer in charge of a <i>Thana</i>
<i>Tola</i>	..	..	A unit of weight, the fortieth part of a <i>seer</i> (<i>lb</i>).
<i>Tranpankhadi</i>	..	..	A design of three petals
<i>Triveni Sangam</i>	..	..	The place near Chandod-Karnali where there is confluence of the Narmada, the Orsang and the latent Sarswati
<i>Tulsi</i>	..	..	The holy basil plant (<i>Ocimum sanctum</i>)
<i>Tuver</i>	..	..	The name of pulse (<i>Phaseolus radiatus</i>)

GLOSSARY

xv

U

<i>Udhad</i>	..	..	A measure of a quantity guessed but not actually weighed, lump-sum
<i>Utara</i>	..	..	Temporary resting place for the members of the marriage party

V

<i>Vad</i>	..	..	A name of a tree, usually called Banyan tree (<i>Ficus benghalensis</i>) considered holy by the Hindus
<i>Vahivatdar</i>	..	..	An administrator or manager, Revenue Officer in charge of a taluka in former princely States
<i>Vaidya</i>	..	..	A doctor in Ayurvedic system of medicine
<i>Vatan</i>	..	..	Country, native place
<i>Vatandar</i>	..	..	A Native
<i>Vav</i>	..	..	A step-well
<i>Vechania</i>	..	..	Land that has been sold
<i>Vel</i>	..	..	A creeper
<i>Vidyalaya</i>	..	..	Educational institution
<i>Vidyarthi Ashram</i>	..	..	Students' residential school
<i>Vighoti</i>	..	..	Land revenue payable in cash
<i>Visaya</i>	..	..	Sub-division of a province during the Hindu period
<i>Vivah homa</i>	..	..	Marriage sacrifice
<i>Vyankaran</i>	..	..	Grammar
<i>Vyayam Shala</i>	..	..	Gymnasium

W

<i>Wada</i>	..	..	Locality
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Y

<i>Yoga</i>	..	..	A system of philosophy, spiritual meditation leading to union with God
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Z

<i>Zamindar</i>	..	..	A landlord
<i>Zanana class</i>	..	..	Ladies Training class

BIBLIOGRAPHY

English

BOOKS

- | | | |
|--|----|---|
| AITCHISON, C. U. | .. | <i>Collection of Treaties, Engagements and Sunnads</i> , Vol. IV, (1864). |
| ALTEKAR, A. S. | .. | <i>Ancient Towns and Cities</i> . |
| BARODA STATE | .. | <i>Gazetteer of the Baroda State</i> , (1946). |
| BERRY, GERALD L. | .. | <i>Zoroastrianism</i> , (1949). |
| BIHANSALI, M. D. | .. | <i>Prohibition Inquiry Reports in Bombay State</i> , (1952). |
| CAMPBELL, J. M. | .. | <i>Gazetteer of the Bombay Presidency</i> , Vol. IX, Part I, <i>Gujarat Population-Hindus</i> , (1901). |
| COMMISSARIAT, M. S. | .. | (i) <i>A History of Gujarat</i> , Vol. I, (1963) and Vol. II (1967).
(ii) <i>Gazetteer of the Bombay Presidency, Rewakantha, Narukot, Cambay and Surat States</i> , Vol. VI, (1880). |
| DESAI, G. H. AND CLARKE A. B. | | <i>Gazetteer of the Baroda State</i> , Vols. I and II, (1923). |
| DESAI, G. N. | .. | <i>Statistical Atlas of the Baroda State</i> , (1918). |
| DESABANDHU, M. S. L. GOWDA | .. | <i>Economic and Political Life in Baroda or Bhagyanagar Raj</i> , (1944). |
| DHARAIYA, R. K. (DR.) | .. | <i>Gujarat in 1857</i> , (1969). |
| DIRECTOR OF AGRICULTURE, GUJARAT STATE | | (i) <i>Basic Agricultural Statistics</i> , (1968).
(ii) <i>Statistics of Area, Production and yield per Acre of Principal Crops in Gujarat State for the period 1949-50 to 1963-64</i> , (1965). |

English—Contd.**BOOKS—contd.**

- DIRECTOR OF INFORMATION,
GOVERNMENT OF GUJARAT .. (i) *Folk Dances of Gujarat*, (1966).
.. (ii) *Gujarat the Torchbearer of Prohibition*,
(1973).
- DIXIT, K. R. (DR.) .. *Geography of Gujarat*, (1970).
- ELLIOT, F. A. H. .. *Gazetteer of the Bombay Presidency, Vol. I.*
VII, Baroda, (1883).
- ENTHOVEN, R. E. .. *The Tribes and Castes of Bombay*,
Vol. I, (1920).
- GHATE, V. S. .. *The Vedanta*, (1926).
- GOVERNMENT OF INDIA .. *A Portrait of Population, Census of India*
1971, (1974).
- GRIERSON, G. A. .. *Linguistic Survey of India. Indo-Aryan*
Family Central Group, Vol. IX, Part II,
Specimen of Rajasthani and Gujarati,
(Reprint 1958).
- HANDA, R. L. .. *History of Freedom Struggle in Princely*
States, (1968).
- MAJMUDAR, M. R. .. (i) *Cultural History of Gujarat*, (1965).
.. (ii) *Historical and Cultural Chronology*
of Gujarat, (1960).
- MEHTA, D. N. (DR.) .. *Profiles of Growing City, M. S. University*
of Baroda, (1971).
- MENON, V. P. .. *The Story of the Integration of the Indian*
States, (1956).
- MISRA, S. C. (DR.) .. (i) *The Rise of Muslim Power in Gujarat*,
(1963).
.. (ii) *Muslim Communities in Gujarat*,
(1963).
- NAIK, T. B. .. *The Bhils-A Study*, (1956).
- PARIKH RAMLAL (EDITOR) .. *Souvenir 66th Session Indian National*
Congress, Bhavnagar, (1961).

English—contd.**BOOKS—concl'd.**

- PATEL, G. D. (DR.) .. (i) *The Land Problem of Reorganised*
Bombay State, (1957).
.. (ii) *The Land Revenue Settlements and*
the British Rule in India, (1969).
- PHADNIS, URMILA .. *Towards the Integration of Indian States*,
1919-1947, (1968).
- SANKALIA, H. D. .. *The Archaeology of Gujarat*, (1941).
- SHAH, P. G. .. *The Naiks-Naikdas (A Gujarat Tribe)*
Part I, (1959).
- SOMPURA, K. F. (DR.) .. *Structural Temples of Gujarat*, (1968).
- STANLEY, RICE .. (i) *Life of Sayajirao III, Vol. I*, (1931).
.. (ii) *The Prasasti of Somesvara VV, 111-113*
R. D.
.. (iii) *Ruins of Dabhoi, Inscription V-4.*
- SYED, NURULLAH AND NAIK, J. P. .. *A History of Education in India (During*
the British Period), (1951).

REPORTS, JOURNALS, ETC.

- AGRICULTURAL PRODUCE .. *Annual Reports of the Agricultural*
MARKET COMMITTEE .. *Produce Market Committee, Karjan,*
Sinor, Bodeli and Chhota Udepur,
1972-73.
- BANK OF BARODA .. (i) *Lead Bank Survey Report on Baroda*
District Gujarat, (1971).
.. (ii) *Report on Baroda Banking Inquiry*
Committee, 1929.
- BARODA STATE .. *Baroda Administration Reports 1875-76,*
1906-07 to 1945-46.
- BOMBAY STATE .. *Socio-Economic Review and District*
Statistical Abstract of Vadodara District,
(1958-59).

English—contd.

REPORTS, JOURNALS, ETC.—contd.

- BUREAU OF ECONOMICS AND STATISTICS (i) *Handbook of Basic Statistics*, 1965 and 1966. (1970).
(ii) *Quarterly Bulletin of Economics and Statistics*, Vol. II No. 1 January-March (1962) and Vol. XII No. 1 January-March, 1972.
- CHHOTA UDEPUR STATE *Chhota Udepur State Annual Administration Report* 1941-42, 1942-43
- DIRECTOR OF GEOLOGY AND MINING, GOVERNMENT OF GUJARAT *Mineral Wealth*, Vol. No. 4 October, December, 1973.
- DIRECTORATE OF INDUSTRIES, GOVERNMENT OF GUJARAT *Industrial Bulletin*, Vol. XII, No. 2, (April, 1973).
- DIRECTOR OF INFORMATION, GOVERNMENT OF GUJARAT *Gujarat Ten Eventful Years*, (1970).
- ELECTION COMMISSION, GOVERNMENT OF INDIA *Reports on the General Elections*, 1951-52, 1957, 1962 and 1967.
- FOREST DEPARTMENT, GOVERNMENT OF GUJARAT *Forest Privileges in the Gujarat State*, (1961).
- GOVERNMENT OF BOMBAY *District Census Handbook* 1951, Baroda District (1952).
- GOVERNMENT OF GUJARAT (i) *Report of the Committee for Gardens of Medicinal Plants*, (1969).
(ii) *Basic Agricultural Statistics of Gujarat State*, 1949-50 to 1961-62.
(iii) *Season and Crop Reports Gujarat State*, 1965-66 and 1970-71.
(iv) *The Gujarat Government Gazetteer*, Vol. VII, No. 13 Part IV-C, dated 31st March, 1966.
(v) *District Census Handbook*, 1961 Baroda District (1964).

BIBLIOGRAPHY

English—contd.

REPORTS, JOURNALS, ETC.—contd.

- (vi) *Census 1971, District Census Handbook, Vadodara District*, Part X-C-I, Gujarat, (1973).
- (vii) *Census 1971, District Census Handbook, Vadodara District*, Part X-A and B (1973).
- (viii) *Gujarat (Weekly)* (March, 1974).
- (ix) *Perspective Plan of Gujarat 1974-84*, Vol. III, (1972).
- GOVERNMENT OF INDIA (i) *Cultural and Migration Tables, Census of India 1961*, Gujarat, Vol. V, Part II-C (1964).
(ii) *Fairs and Festivals, Census of India, 1961*, Gujarat, Vol. V, Part VII-B (1965).
(iii) *Census of India 1971, Administrative Atlas*, Part V-A (1972).
(iv) *Census of India 1961*, Vol. V, Gujarat, Part I-A (iii), *General Report on the Census Economic Trends and Projections* (1965).
(v) *General Report on the Census of India 1961*, Gujarat, Vol. V, Part I-A(i), (1965).
(vi) *Housing and Establishment Tables (E-Series Tables)*, *Census of India 1961*, Gujarat, Vol. V, Part IV-B (1963).
(vii) *Tables on Scheduled Castes and Scheduled Tribes, Census of India, 1961*, Gujarat, Vol. V, Part V-A (1964).
(viii) *Census of India 1961*, Vol. V, Part V-II-A, *Transparent Lacquer Work of Sankheda*, (1964).

English—contd.

REPORTS, JOURNALS, ETC.—contd.

- INDIAN SCIENCE CONGRESS, .. *Souvenir, Forty Second Session, (1955).*
BARODA
- MAJMUNDAR, CHANDRAMAULI *Article in Souvenir of the Sankheda Sarvajanic Education Trust, (1972).*
- MEHTA, R. N. (DR.) .. *Article on Highlights on Baroda in "Profiles of a growing city", (1971).*
- MUKERJEE, SATYA V. .. *Census of India 1931, Vol. XIX, Baroda, Part-I (1932).*
- PANCHAYAT AND HEALTH DEPARTMENT *Annual Administration Report 1969-70.*
- PANDIT, P. B. .. *Language and Dialects, an Article published in the Bhavnagar Sourvenir of the 66th Session of the Indian National Congress, (1961).*
- PRESS INFORMATION BUREAU, GOVERNMENT OF INDIA *Yojana, 16th June, 1974.*
- RESERVE BANK OF INDIA .. *Statistical Tables Relating to Banks in India 1968 and 1970.*
- SANDESARA, B. J. .. *'Origin and Evolution of Language' an article published in the Bhavnagar Souvenir of the 66th Session of the Indian National Congress (1961).*
- SHAH UMAKANT (DR.) AND MEHTA, RAMANLAL (DR.) *Journal of the Gujarat Research Society, October, 1958.*
- SUBBARAO, B. (DR.) .. (i) *Archaeology of Gujarat, Article in the Indian Science Congress 42nd Session, Souvenir, (1955).*
(ii) *Article on "Baroda through the Ages" in Indian Science Congress 42nd Session, Souvenir, (1955).*

Gujarati

- DIRECTOR OF INFORMATION, GOVERNMENT OF GUJARAT *Pragati-ne-Panthe, Ayojanna Adhar Varsh, Vadodara Jillo, Gujarat State.*

Gujarati—contd.

- JOTE, RATANMANIRAO B. .. *Gujaratno Sanskritik Itihas, Vol. II, (1954).*
- KALELKAR, D. B. .. *Jeevta Tahevaro, (1930).*
- MASTER, KARIM MOHAMMAD .. *Maha Gujarat-na-Musalmano, Part 1-2, (1969).*
- MEHTA, SUMANT (DR.) .. *Atma-Katha, Vol. I, (1971).*
- PARIKH, N. D. .. *Sardar Vallabhbhai, (1932).*
- PARIKH, RASIKLAL C. AND SHASTRI, HARIPRASAD G. *Gujaratno Rajkiya ane Sanskritik Itihas, Vol. 1 (1972).*
- PARMAR, JAYMAL .. *Apani Lok Sanskriti, (1957).*
- PATEL, HIRALAL SHAMALBHAI (EDITOR) *Kayavarohan Tirthno Itihas, (1964).*
- RAJYAGOR, S. B. (DR.) .. (i) *Gujarat Ek Darshan, Vadodara, (1969)*
(ii) *Gujaratno Rajkiya ane Sanskritik Itihas, Ahmadabad, (1974).*
- RATHOD, RAMSINHJI AND PARMAR, KHODIDAS *Article in 'Kumar' of June, 1970.*

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