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**GAZETTEER OF INDIA
RAJASTHAN
BIKANER**

**RAJASTHAN DISTRICT
GAZETTEERS**



BIKANER

By
K. K. SEHGAL

**DIRECTORATE, DISTRICT GAZETTEERS
GOVERNMENT OF RAJASTHAN,
JAIPUR.**

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PREFACE

The District Gazetteer of Bikaner is the tenth in the series of District Gazetteers being published by the Government of Rājasthān in collaboration with the Central Gazetteers Unit of India. The area now comprising the district of Bikaner formed a part of the erstwhile princely State of Bikaner, which was founded by Rao Bika, a Rathor prince, in the fifteenth century A.D. The antiquity of the tract is, however, much older and a reference about it is available in the *Mahabharata*. For sometime the area remained the cradle of the migrant Yaudheyas. When the Rathors appeared on the scene, the territory was inhabited by various Jat clans. For about half-a-millennium the descendants of Rao Bika ruled over this region with Bikaner town as the seat of their Government. Under the Rathors the State witnessed various upheavals. The ramparts of Bikaner fort remind us even today of the saga of many a fierce battle. With the growth of Mughal power under Akbar, Bikaner became one of the leading states of Rājputāna. Its brave soldiery, known for its chivalrous deeds, constituted the flower of the Mughal army. After the disintegration of the Mughal empire the Bikaner House suffered a set-back and there was a slow decline in its prosperity and power. In the beginning of the 19th century, the State sought British protection owing to internecine feuds with its own nobility and the neighbouring states.

Bikaner remained a great centre of learning during the medieval period. The town still possesses one of the biggest collections of rare manuscripts in the country. Known connoisseurs of art and literature, the Bikaner rulers gave patronage to many renowned litterateurs, painters and architects in their courts.

The first Gazetteer of the Bikaner State, written by Captain P.W. Powlett, was published in 1874. Erskine's Gazetteer of Western Rājputāna States and Bikaner Residency was published about three decades later in 1909. A brief description of the State and its constituent parts was also included in the Imperial Gazetteer of India and its provincial series. The Gazetteers of the pre-independence days contained only such information as would prove useful to a colonial government in administering a country of continental

dimensions. In the princely States the Gazetteers were prepared solely for the use of the Darbars, the State officials and the political officers accredited to them. These publications merely highlighted the customs and traditions of the upper echelons of the society while completely ignoring the lower strata.

Mighty transformations have taken place in India in political, social and economic sphere during the past few decades. The country has experienced far-reaching changes under the impact of internal and international social forces. The old Gazetteers, although a valuable source material for the scholars and historians, have become out-of-date in the changed circumstances. The work of revising and rewriting the Gazetteers was, therefore, taken up as a national project which is being implemented by the Government of India, State Governments and the Administrations of the Union Territories. The new series of District Gazetteers gives an all-sided and inter-connected account of the emerging democratic pattern of life in the country since Independence.

The material available in the old Gazetteers has been used freely particularly in chapters dealing with subjects like topography, rivers, geology etc. where no change in the text was required. The bulk of the information had, however, to be collected from a number of publications, Government and private, and from other sources. The data included in the volume, unless specifically mentioned in the text otherwise, pertain to the period ending 1965-66.

I am greatly indebted to the various departments of the State and Central Government, Semi-Government institutions and individuals who have helped us by extending their co-operation and making the necessary material available. I must make a special mention and express my thanks to Dr. P.N. Chopra, M. A. Ph. D., Editor, District Gazetteers and the staff of Central Gazetteers Unit, Union Ministry of Education and Youth Services, New Delhi, for their effective role in planning and co-ordinating the work of preparation of the District Gazetteers. The Unit scrutinised the draft of this volume with great care and made several helpful suggestions with a view to improving the standard and quality of the publication. I am also indebted to Shri Maya Ram, the then Director, who prepared the first draft of this Gazetteer and sent it to Central Gazetteers Unit, New Delhi. I make grateful acknowledgement of my

obligations to Shri K.P.U Menon and Shri Z. S. Jhala, the ex-Chief Secretaries and Shri S.L. Khurana the present Chief Secretary to the Government of Rājasthān, for guiding and helping us in the work.

My thanks are also due to the staff of the Gazetteers Department who worked as a team to help me in the difficult task of compilation of the Gazetteer. I must record my genuine appreciation for the services rendered by them.

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DIRECTOR, DISTRICT GAZETTEERS,
RAJASTHAN, JAIPUR.

GAZETTEER OF BIKANER DISTRICT

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CONVERSION TABLE

Length

1 inch = 2.54 centimetres
 1 foot = 30.48 centimetres
 1 yard = 91.44 centimetres
 1 mile = 1.61 kilometres

Area

1 square foot = 0.093 square metre
 1 square yard = 0.836 square metre
 1 square mile = 2.59 square kilometres
 1 acre = 0.405 hectare

Volume

1 cubic foot = 0.028 cubic metre

Capacity

1 gallon (Imperial) = 4.55 litres
 1 seer (80 tola) = 0.937 litre

Weight

1 tola = 11.66 grams
 1 chhatank = 58.32 grams
 1 seer = 933.10 grams
 1 maund = 37.32 kilograms
 1 seer (24 tolas) = 279.93 grams
 1 ounce = 28.35 grams
 1 pound = 453.59 grams
 1 ton = 1,016.05 kilograms

Temperature

$t^{\circ}\text{ Fahrenheit} = 9/5 (T^{\circ}\text{ centigrade}) + 32$

Metric Weights & Measures

Length

10 millimetres = 1 centimetre
 100 centimetres = 1 metre
 1,000 metres = 1 kilometre

Area

100 square millimetres = 1 square centimetre
 10,000 square centimetres = 1 square metre or centiare
 100 square metres = 1 are
 100 ares = 1 hectare
 100 hectares or 1,000,000 square metres = 1 sq. kilometre

Volume

1,000,000 cubic centimetres = 1 cubic metre

Capacity

1,000 millilitres = 1 litre
 1,000 litres = 1 kilolitre

Weight

1,000 milligrams = 1 gram
 1,000 grams = 1 kilogram
 100 kilograms = 1 quintal
 1,000 kilograms = 1 tonne
 200 milligrams = 1 carat

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CHAPTER I

GENERAL

INTRODUCTORY

Origin of the name of the district

The district derives its name from its principal city 'Bikaner' which perpetuates the memory of its founder Rao Bika (1438-1504 A. D.). *Ner* literally means a 'settlement' or a 'habitation'. Tradition also says that *Naira* or *Nera* was the name of the owner of the site who parted with it on the condition that his name should be linked with Rao Bika, and hence the name 'Bikaner'.

Location, boundaries, area and population

Lying in the north-western part of Rājasthān, it is located between 27°11' and 29°03' north latitude and 71°54' and 74°12' east longitude. It is bounded on the north by Gangānagar district, on the west partly by Jaisalmer district and partly by Bahāwalpur district (West Pākistān), on the east by the Churu and Gangānagar districts and on the south-east and south by Nāgaur and Jodhpur districts. The total area of the district is 27,118 sq. kilometres according to the Central Statistical Organisation, Government of India, thus ranking third in area compared to other districts of Rājasthān, though with a population only of 4,44,515 souls it ranks as low as twenty second. The greatest distance between the extreme parallels is 207 km. (129 miles) and the extreme meridians is 225 km. (140 miles).

History of the district as an administrative unit

Since the foundation of the erstwhile State of Bikaner (1488 A.D.), the seat of the Government had remained at Bikaner city, the principal town of the State, and at present it is the headquarters of the district. For purposes of administration, the State was divided into two divisions before its merger with Rājasthān; namely the *Sadar* or Bikaner and Gangānagar. These two divisions were further sub-divided into six districts or *Nizamats* each in charge of a *nazim* viz., Bikaner, Gangānagar, Rājgarh, Rāisinghnagar, Sujāngarh and Suratgarh. *Nizamat* Bikaner was also called *Sadar* because, besides the headquarters of the *Nizamat*, it was the capital of the State and the seat of the Government.

In 1947, Bikaner State was one of the first States to sign the instruments of accession to India. In 1949, the State was merged in the State of Rājasthān and ceased to exist as a separate political unit, and the territory, comprised in the erstwhile State formed one of the five divisions of Rājasthān under a Divisional Commissioner. It was further divided into three districts. The erstwhile Bikaner *Nizamat* was constituted into the present Bikaner district under the charge of a Collector and District Magistrate. In 1954, 43 villages and three hamlets were transferred from former Bāp tahsīl of Jaisalmer district to Kolāyat tahsīl¹ of this district.

The present district has two sub-divisions viz., Bikaner North and Bikaner South. These two sub-divisions are comprised of two tahsīls each; namely, Bikaner and Lunkaransar, and Kolāyat and Naukha respectively. The following table gives the names, number of villages and population of each of them.

Sub-division	Tahsīl	Cities/ towns	Villages (inhabited)	Population
Bikaner North	1. Bikaner	5	141	2,51,781
	2. Lunkaransar	—	141	53,967
Bikaner South	1. Kolāyat	—	126	47,998
	2. Naukha	1	117	90,769
2	4	6	525	4,44,515

TOPOGRAPHY

The map of Bikaner district has the appearance of an irregular polygon having ten sides. The major part of the district covers desolate and dreary regions which form part of the Great Indian Desert of Thar. The district can be classified into two natural divisions: (i) north and western desert, and (ii) south and eastern semi-desert. In greater part of the territory, the plain is undulating or interspersed with shifting sand hills, the slopes of which are lightly furrowed by action of the wind. There are no hills, and no rivulets or streams of any significance, and the panorama it presents is that of an expanse of sand relieved here and there by sand features and a few habitations.

1. As per Government of Rājasthān Notification No. F2(46)GA(A)/53 dated 31.5.1954.

The general elevation of the district plain varies between 154 to 429 metres above the sea level sloping generally towards the north-west. The sand-dunes, range in height from 6 to 30 metres, suggesting the ribbed appearance of a sea shore. After the rains, the desolate desert turns into a vast green pasture-land for a short time in the year.

RIVER SYSTEM AND WATER RESOURCES

Lakes, Rivers and Tanks

With an average rainfall ranging from 12.70 cm. to 25.40 cm. (5" to 10") there is practically no surface run-off and therefore, no river worth the name. There are, however, a few local *nullahs* in which the little run-off from the surface wherever it is hard finds its way. Some of the water in these *nullahs* is impounded in tanks for irrigation. The district can boast of only two small fresh water lakelets formed by the drainage of the rocky country in the south-west of the district. The first one at Gajner is located at a distance of 32 kilometres (20 miles) from Bikaner city. It is about 0.4 km. (quarter mile) long, and 183 or 274 metres (two or three hundred yards) across. The water of this lake is mostly utilised for drinking and bathing purposes but in the years of good rainfall wheat and mustard are also grown in the neighbouring areas. With its clear and still waters glistening under the burning sun, and one side framed as it were, by the imposing palaces and the attached gardens; and the other by wooded verdure, the lake looks like an inset mirror. It gives great relief to the weary travellers passing through the dreary desert, or to the citizens of Bikaner who oppressed by intense summer heat, resort to its bank for picnic and pleasure.

The second lakelet at Kolāyat is somewhat smaller and is situated at a distance of about 16 kilometres west of Gajner. Bathing in this lake is considered to earn religious merit. Many people on that account visit it. Numerous neat bathing *ghats* have been built around it shaded by *peepal* trees. It is a beautiful oasis amidst the vast expanse of arid desert.

There is a salt lake in this district at Lunkaransar about 80 kilometres, north-east of the district headquarters. Salt is no longer being produced from lake waters as it is of poor quality. There are various other tanks in the district notably at Gangasarowar-Mandal madh, Dadav, Kinia, Bhatia and Khudi.

Underground Water

Underground water which is the main source for drinking and other purposes is generally found at a depth of about 90 to 100 metres below the ground level. The discharge from the wells varies from 18,200 litres per hour (4,000 gallons per hour) to 91,000 litres per hour (20,000 gallons per hour).

GEOLOGY

Geological formation

The geological history of western Rājasthān, despite many discoveries in this field, is still hedged in obscurity. A good many Geologists, however, believe that during the jurassic, cretaceous and Eocene periods, the western portion of Rājasthān, including the Bikaner district was under the sea. Later in the geological period known as the Upper Tertiary, the sea receded and the area got uplifted into dry land. According to Dr. D.N. Wadia the long continued and extreme degree of aridity combined with the sand-drifting action of the south-west monsoon winds, which sweep through the region for several months of the year without precipitating any part of their contained moisture, resulted in its sand-blasted topography. A certain proportion of the desert sand is derived from the weathered debris of the rocky prominences of this tract, which are subject to the great diurnal as well as seasonal alterations of temperature characteristic of all arid regions. This leads to a mechanical disintegration of the rocks, producing an abundance of loose debris, which there is no chemical or organic action (humus) to convert into soil.¹

The district of Bikaner is, thus a vast sandy tract. Three of its four tahsils namely, Bikaner, Lunkaransar and Naukha are covered with sand. Rocks locally known as *Magra* are found in the south-western portion of the district, which is part of Kolāyat tahsil. In other parts of the district sand-layer has been found while digging extensive and deep wells, upto a depth of 45 metres. In the hard or the *Magra* area, various types of sand-stone, clay and lime-stone have been revealed at different levels. At a depth of 32 km. (20 miles) horizontal beds of various rocks belonging to the Eocene Age have been discovered which shows that this area was subjected to sedimentation of sand stones for a pretty long time. Similar sedimentary

1. R.C. Majumdar : *The History and Culture of Indian People*, Vol. I, p. 86.

formations of the same age have been found in the south-western Punjab (now a part of Pākistān) extending far into the Arabian sea. It is probable that a long gulf had once covered the whole portion of this territory, and the same gradually receded towards the south and south-west. The geological formations of Eocene Age are well represented in the neighbourhood of Bikaner city. The strata consists of thick white and buff limestones and shales. Lignite and beds of fuller's earth occur in these formations.

Minerals

The minerals found in this district are mainly confined to the small areas in the south. They are as follows:

(1) FULLERS' EARTH (*Multani Mitti*)—Fullers' earth is found in thick beds in the *Magra* (Kolāyat) tahsil and in Palāna (about 23 km. south of Bikaner). It is a well-known greasy clay used by the local people as soap and for dyeing clothes. It is also associated with sand-stone and lime-stone and is available in large quantities.

(2) LIGNITE—At Palāna (about 23 km. south of Bikaner) the lignite deposits are scattered in an area, 4 km. long and nearly 1 km. broad. Its depth varies from 42 metres to 67 metres from the surface and thickness from 1.2 metres to 28.3 metres. It contains 8.20 per cent of moisture, 42.72 per cent of fixed carbon and 9.80 per cent of ash. Geologically, this lignite belongs to the lower Eocene period. The lignite deposit is a boon to this desert region where cheap fuel sources are not available. Tons of lignite were produced and used by the power house at Bikaner city during the previous regime of the erstwhile State and till recently.

(3) GYPSUM—It is of the best quality available in India and is found at Jāmsar (about 24 km. in the north of Bikaner), at Lunkaransar (about 80 km.), at Dulmera (about 68 km.), and at Dhīrera (about 62 km.). According to the survey conducted by the department of Mines and Geology, Government of India, the total deposits have been estimated at nearly 40.6 million metric tonnes (40 million tons). Gypsum is used by the cement industry to a very great extent. Some deposits of gypsum also occur at Jaimalsar (28°7' 73°2'), Kanvni (28°9'–73°6'), Bharu (18 km. from Jaimalsar), Makrāsar (19 km. from Jāmsar), Dholera (9 km. from Jāmsar).

(4) WHITE CLAY—The deposits of white clay (or fire clay) are

found within a radius of 11 km. from Kolāyat. The mines are situated at Marh, Kotri Indāka Bāla and Chandi (all in the Kolāyat tahsīl).

(5) **YELLOW OCHRE**—Its mines are located near the Jogīra Talao (6. km away from Marh village in the Kolāyat tahsīl) and in Kismide-sar area near Bikaner city.

(6) **GLASS SAND**—Glass sand of a good quality is available in the village Marh (Kolāyat tahsīl).

(7) **SAND STONE**—The deposits of this mineral have been found at a distance of about 68 km. (42 miles) in the north-east of Bikaner in village Dulmera. Sand stone is used as a building material.

(8) **LIME STONE**—This mineral has been discovered in Naukha tahsīl of the district near village Dawa-Silwa. The mines are located 23 km. (14 miles) away from the Naukha railway station.

(9) **GRIT (Bajari)**—This is found in large deposits near Gangā-shahar, Garsisar and Sheo-Bāri, and all around the Bikaner city within a radius of 11 km. (7 miles). It is of considerable use in construction, especially where re-inforced concrete work is to be done.

Seismicity of Bikaner

Bikaner district in Rājasthān lies in an area where no earth quake of any significance has been located in the past. It has, however, experienced the fringe effects of the great earth quakes originating, either in the great Himalayan boundary fault zone, the Suleman range or the Rann of Kutch. According to the records of the National Observatories, Delhi, the following earthquakes were reported to have been felt in Bikaner district:

S.No.	Date	Location	Remarks
1.	1819, June 16	Rann of Kutch	A great shock which caused devastation near its place of origin. Felt all over Rājasthān and adjoining areas.
2.	1905, April 4	Kangra	A great shock with its epicentre on great Himalayan boundary fault zone in Kangra was also felt all over Rājasthān.
3.	1931, August 27	Mach (Baluchistan)	Felt at Bikaner.

Besides, a few shocks originating in the Hindukush mountains, generally felt upto Delhi could also have been felt in the district.

There is no record of earth quakes having caused damage to structures in this district in the past. According to records maximum seismic intensity¹ experienced at Bikaner was V on the Modified Mercalli Scale-1931 during the earth quakes of 1819 and 1905.

With such a seismic status, provision of earth quake factor in the design of ordinary civil engineering structures need not be made in the Bikaner district. Safety precautions normally taken are sufficient to counteract the likely earth quake effect in future.

FLORA

The vegetation of Bikaner district falls under the broad natural division of tropical thorn forest. But due to extremely low rainfall and extremes of temperature, there is high evaporation and loss of moisture, converting the district into a typical arid tract.

Forests

In such a tract, no forest worth the name can grow. In low lying areas of the district, however, where the moisture accumulates to some extent during rains, a few scattered stunted trees of *Prosopis Spicigera* (Khejra) and *Tecoma Undulata* (Rohira) are found, none taller than 6 metres. Special efforts were made during the regime of the erstwhile Bikaner State, to preserve the existing forest wealth, wherever found, and to encourage planting of trees by private individuals by granting rewards and offering concessions. Cutting of green trees was prohibited and trees were also planted and preserved at State expense.

For the first time in 1910, the services of an officer of the Punjab Forest Department were secured. He was to draw a scheme for plantation and growth of such hardy trees that could grow and flourish in this sandy tract. A regular forest department was established in the year 1924.² Officers were sent for training to important training-centres in India. Nurseries were set-up at Gangānagar, Karanpur, Raisinghnagar, Jetsar and Padampur wherein several lac of plants

1. Felt by nearly everyone; many awakened. Some dishes, windows, etc. broken; a few instances of cracked plaster; unstable objects overturned. Disturbance of trees, poles and other tall objects sometimes noticed. Pendulum clocks may stop.
2. Report on the Administration of the Bikaner State, 1924-25, p. 71.

had been raised. Plants were distributed to the jagirdars and others to encourage plantation of trees in the area. The results, however, were not commensurate with the efforts put.

After the merger of the State with Rājasthān, Bikaner and Jodhpur divisions were combined to form a forest zone under a Divisional Forest Officer with headquarters at Jodhpur. A forest ranger is posted at Bikaner who looks after the activities of the department in the district. He is assisted by a Forester for *Johar Bir* and a few Forest Guards and Cattle Guards. This small staff looks after the *Johar Bir*, executes developmental works of the department, and also assists the various panchayats in growing trees and developing pastures. A working plan for the whole of the division has been drawn for the years 1960-61 to 1969-70. The plan envisages raising of experimental plantations on sand-dunes and along the roads in this district.

Revenue from Forest Department

Revenue accruing from the Forest department in the district during recent years is given below:

Year	Revenue (Rs.)
1962-63	9,510
1963-64	5,397
1964-65	10,349
1965-66	7,667

Protected and Private Forests

As there are no forests worth the name in the district, the importance of the few patches of Protected forests and Private forests, therefore, is all the more significant in this typically arid zone. The following are the important patches of forests in the district.

1. <i>Johar Bir</i>	8,861 hectares	(Forest Department)
2. <i>Bichhwal Bir</i>	405 hectares	(Forest Department)
3. <i>Bichhwal Area</i>	9,712 hectares	(Central Arid Zone Research Institute)
4. <i>Udramsar</i>	188 hectares	(Central Arid Zone Research Institute)
5. <i>Gajner Preserve</i>	24 sq. km.	(The Mahārajah's Private Preserve).

Besides, there are a few groves of trees preserved by some of the temples, as growing and nursing of trees was regarded as a religious duty. Cutting of such trees tantamounts to committing a sin and they are thus afforded natural protection. Locally these clusters are called *Orans* and those of Deshnok and Koramdesar temples are renowned in this respect.

There are two forest nurseries in the district : (i) Forest nursery, public park (Bikaner), which is being managed by the Forest department of the Government of Rājasthān and (ii) Forest nursery, Sheo-Bāri (near Bikaner) managed by Central Arid Zone Research Institute.

RESEARCH INSTITUTE—Besides, the two nurseries mentioned above, there are two Research Centres also, one located at *Bichhwal* and the other at *Johar-Bir*. The former is run by Central Arid Zone Research Institute for afforestation agronomy and pasture development, while the latter by the Forest department, Government of Rājasthān for the purpose of pasture-development.

The other shrubs that are found in protected places are as follows:

1. *Acacia acquemontii* (*Bhoo Bawli*)
2. *Acacia Senegal* (*Kumat*)
3. *Aerva tomentosa* (*Bui*) (*Booi-Crotalaria Burhia*)
4. *Calligonum polygonoides* (*Phog*)
5. *Calotropis procera* (*ak*)
6. *Capparis aphylla* (*Karil or Kair*) *Acacia Catechu* (*Khair*)
7. *Cordia rothii* (*Goondi*)
8. *Maytenus emarginatus* (*Kankero*)
9. *Leptadenia spartium* (*Khimp*)
10. *Salvadora-oleoides* (*Jal-pilu*)
11. *Salvadora-persica* (*Chhota pilu*)
12. *Tamarix articulata* (*Farash*)
13. *Withania somnifera* (*Asgand*)
14. *Ziziphus jujuba* (*Ber*)
15. *Ziziphus nummularia* (*Jhar Ber*)

The important grasses that are found growing in the district are the following :

1. *Aristida species* (*Lampla*)
2. *Cenchrus catharticus* (*Bharut*)
3. *Cenchrus ciliaris* (*Dhaman*)

4. *Cenchrus setigerus* (*Modia Dhaman*)
5. *Dactyloctenium scindicum* (*Ganthil*)
6. *Desmostachya bipinnata* (*Dah*)
7. *Eleusine flagellifera* (*Nara*)
8. *Lasiurus seindicus* (*Sewan*)
9. *Panicum antidotale* (*Ghamod*)
10. *Panicum turgidum* (*Murat*)
11. *Saccharum Spontaneum* (*Kans*)

There are no particular vegetative divisions in the district. The vegetation in the eastern and southern part (Naukha tahsīl) is comparatively thicker and taller with greater preponderance of *Khejri*, *Rohira*, *Kankera* and *Munja* grass; whereas the drier parts in Lunkaransar and Kolāyat tahsils have a few scattered trees of *Khejri* and practically none of *Rohira*, *Kankera* and no *Munja* grass. Since there is extensive agriculture in Naukha tahsil, there is less ground-cover whereas on account of meagre rain, in the north-western sides, there is less of agriculture and better ground-cover, mostly of grasses and low bushes. This drier part of the district has good pastures, practically, of nutritive grasses viz., *Sehwan*, *Dhaman* and *Ganthil* on which the *Rathi* cows, one of the best milch cattle in the country, and the *Jaisalmeri* and *Nali* breeds of sheep feed.

FAUNA

ANIMALS—As there are no wild forests or hills, the district does not abound in any special type of wild animals. The fauna found here is of common variety such as, Black Buck-Indian antelope (*Antelope cervicapara*), chinkara (*Gazella benetti*), fox (*Vulpes bengalensis*), jackal (*Canis aureus*), mongoose (*Herpestes edwardsi*), porcupine (*Hystrix indica*), striped squirrel (*Funambulus pennanti*), wild boar (*Sus indicus*) and wolf (*Canis lupus*).

Chinkaras and black bucks, exist in abundance as their killing is looked with disfavour and frowned upon by local inhabitants especially in villages inhabited by Bishnois. In the neighbourhood of Gajner, wild boars, spotted deer, sambar, blue bull, hares and jackals roam about in herds. They are preserved and said to do great mischief. Gajner (32 km. from Bikaner city), *Johar Bir* (10 km. from the district headquarters), Vallabh garden and *Bichhwal* abound in Chinkaras (spotted deer and sambar have been introduced in Gajner).

REPTILES—A large number of snakes are found in the district having their different names and sizes. Poisonous snakes like cobra, the krait and the viper, are sometimes seen but the viper locally known as *bandi* exists in abundance. An interesting, though a gruesome function is associated with another type of snake known locally as *Paina* and found in drier parts of the district. It is believed that this snake introduces poison in the body through breathing and not by biting. How far this popular belief is based on truth has, however, not yet been investigated. Mortality rate due to snake bite is not known.

BIRDS—Birds commonly found in this arid district may be listed as: 1. King Vulture, 2. White Vulture, 3. House-Crow, 4. Jungle-Crow, 5. King-Crow, 6. the White-checked Bulbul, 7. the Red-vented Bulbul, 8. the House-Sparrow, 9. Owl, 10. Kite, 11. Rock-Pigeon, 12. Sand-grouse, 13. Imperial Sand-grouse (migratory), 14. Grey Pidgeon, 15. Ducks (common teal, pochard, etc.) in Gajner tank, 16. Pea fowl, 17. Snipes, 18. Snippet, 19. Grey Shrike, 20. Seven-sisters, 21. the lesser Bustard (migratory), 22. the Indian Bustard, 23. the Lapwing, 24. the Starling, and 25. Grey Dove.

Of these special mention may be made of the great Indian bustard (*Chovistis nigriceps*). It is one of the biggest birds in India with a black cap and whitish neck weighing upto 18.14 kg. (40 lbs). This beautiful bustard usually has its abode in grassy plains or in standing crops. It generally struts in flocks consisting of two to eight or more. The most marked characteristic of the species is its habit of suddenly jumping off the ground into the air above the grass. Sometimes it flies with a peculiar wheeling flight with quick wing beats, but does not usually rise very high in the air due to its bulk. Its feed consists chiefly of grass-hoppers, but other insects, grains, seeds and tender shoots are also welcome to its gaping stomach. The main breeding season is from August to October. No nest is made, and eggs two to five in number are deposited on the ground in some unfrequented path in a grassy field. The egg is oval in shape but is slightly depressed at the two ends. The shell is stout and smooth, closely pitted with minute pores, and usually has a good deal of gloss. Its meat is finely flavoured throughout the cold months, but it is tough and often coarse at other times of the year. Because of the quantity of meat it contains, this bird is much sought for and a lot of poaching goes on even though the bird has been declared as a 'protected game' all the year round under the Rājasthān Animals and Birds Protection Act, 1951 and rules framed there under.

Game Sancturies

Except for the two private preserves of the Mahārāja of Bikaner viz., Gajner and Vallabh gardens there are no game sancturies in the district. All the game within the forests of the *Johar Bir*, *Bīchhwāl* and *Udrāmser*, however, are protected under the Rājasthān Forest Act. The preserve at Gajner about 38 sq. km. in area is situated at a distance of about 32 km. from Bikaner, with an artificial lake and a beautiful palace of the Mahārāja on its bank. The preserve abounds in various types of ducks, sand-grouse, the imperial sand-grouse, chinkaras, black bucks, wild boar, hare, fox and blue bull (all the local species), besides spotted deer (*cheetal*) and sambar that have been introduced and have multiplied there.

The second preserve at Vallabh garden is small in size covering an area of about 12 sq. km. It is situated close to the town of Bikaner and abounds in chinkaras, grey partridge, sand-grouse and hares. As it is accessible by road all the year around and grazing is permitted in it, it is fast losing its sanctity as a game sanctuary and may soon be depleted of all the game.

CLIMATE

The district has a dry climate with large variations of temperature, and scanty rainfall. The winter lasts from November to March and is followed by summer from April to June. The rainy season begins in July and ends by Mid-September. The weather is mild and pleasant during September and October. Hot winds continue blowing in summer during the day sweeping away the old and creating new sand-dunes. The heat is intolerable in the sun and people while away their time in underground cellars. With the setting of the sun, the sands lose their temperature swiftly, and nights become cool and pleasant to bestow refreshing repose to the shattered nerves. The winters are equally severe, the temperature sometimes touching the freezing point during the night. G. S. Ojha has made a mention of an unfortunate historical incident in which General Elphinstone while going to Kabul passed through this desert area in the month of November, 1808 (A.D.). He lost forty men who were not accustomed to, or not prepared to face, severe sandy winter of Bikaner.

Rainfall

Records of rainfall in the district are available for six stations for periods ranging from nineteen to eighty years. Appendices I and II

give the details of the rainfall at these stations and for the district as a whole. The average annual rainfall in the district is 259.6 mm. (10.22"). The average rainfall in general increases as we go from the north-west towards the south-east. For the north-western areas of the district no rainfall data are available and the rainfall is much less than in the south-eastern half of the district. About 76 per cent of the annual rainfall is received from the south-west monsoon.

Variation in rainfall from year to year is considerable. As will appear from appendix II in forty two years out of fifty, this variation ranged from 100 to 400 mm. (3.94" to 15.75"). In the fifty years beginning from 1901 to 1950, the highest annual rainfall in the district, amounting to 293 per cent of the average was recorded in 1917. The succeeding year 1918 witnessed the lowest rainfall of 24 per cent of the average. Similar variations in rainfall from year to year are also noticeable in the north-western areas of the district. In sixteen years, the rainfall in this area was less than 80 per cent of its annual normal rainfall of the district. In other parts of the district there have been only three occasions when two consecutive years had less than 80 per cent of the normal average. At certain places rainfall was less than 80 per cent of the normal in four or even five consecutive years.

On an average, there are sixteen rainy days (i.e. days with rain of 2.5 mm. or more) in a year. This number varies from thirteen at Lunkaransar to nineteen at Bikaner. August is the rainiest month of the year. The highest rainfall in 24 hours which occurred at any station in the district, was 265.9 mm. (10.47") at Palāna on August 7, 1933.

Temperature

There is a meteorological observatory at Bikaner and the records of this station may be taken to be representative of the climatological conditions in the district. Temperature rises rapidly after March. June is the hottest month with the mean daily maximum temperature at 41.5°C (106.7°F) and the mean daily minimum temperature at 29.3°C (84.7°F). The summer months are extremely hot with scorching dust laden winds, the day temperature sometimes going upto about 49°C (120°F). With the advance of south-west monsoon by about the middle of July, temperature decreases down a little, but the oppressiveness of the weather continues due to increased humidity. The highest temperature recorded at Bikaner on 28th May, 1914 was 49.4°C (121°F).

After the later half of September when monsoon withdraws, the day temperature goes up a little but the night temperature is low. From November, the drop in both day and night temperatures is very large particularly in the winter months. The drop in temperature after night-fall is rather sudden and trying. January is the coldest month when the mean daily minimum temperature is 5.2°C (41.3°F) and the mean daily maximum temperature is 22.1°C (71.8°F). During the winter season, cold waves affect the district in the wake of passing western disturbances and the minimum temperature sometimes drops to 2 or 3°C below freezing point. Frosts are fairly frequent. The lowest temperature of -4.0°C (24.8°F) was recorded on January 26, 1964.

Humidity

Except during the brief rainy season, humidity in the air is low and even during the rainy period, air is dry in between the rains. The summer months are the driest, especially in the afternoons of April and May when relative humidity is of the order of 15 to 20 per cent.

Cloudiness

Even during the rains, it is only on a few days that the skies are overcast or heavily clouded. They are either clear or lightly clouded during the rest of the year, except that during the winter, in association with western disturbances, cloudy skies prevail for short spells of a day or two.

Winds

From May to September moderate south-west winds blow, but in the rest of the year they are generally light. From May to October mostly south-west winds blow. During the winter season (November to March) winds are generally light in the morning (directions between east and south being more common), but in the afternoons they become heavy mainly from north-west. In April, the morning winds are generally south-eastern and western while in the afternoons they blow mostly from directions between south-west and north-west.

Special weather phenomena

Some of the depressions which originate in the Bay of Bengal in the south-west monsoon season, move in a westerly direction reaching the district during their last stages of journey and cause widespread rain

before dissipating. An occasional post-monsoon storm or depression also affects the district. Sand and dust-storms and thunder-storms occur in the summer season. Thunder-storms occur in the south-west during the monsoon season also. In the wake of western disturbances, occasional fog occurs in winter.

Appendices III, IV and V give the temperature and humidity, mean wind speed and frequency of special weather phenomena respectively for Bikaner.

APPENDIX I

Normals and extremes of Rainfall

Station	No. of years of data	January	February	March	April	May	June	July	August	September	October	November	December	Annual	Highest annual rainfall as % of normal & year**	Lowest annual rainfall as % of normal & year**	*Heaviest rainfall in 24 hours Amount (mm)	Date
Bikaner	50 a	5.3	7.1	6.3	5.8	12.9	27.9	92.5	95.8	40.1	7.1	1.0	4.3	306.1	251 (1917)	17 (1918)	165.6	1945 Sept. 25
Lunkaran-	b	0.7	0.6	0.7	0.6	1.1	2.2	5.2	4.8	2.2	0.4	0.1	0.4	19.0	361 (1917)	18 (1918)	114.3	1949 Sept. 20
sar	45 a	3.6	5.3	3.3	3.6	8.9	26.2	70.4	66.3	33.3	6.3	0.3	5.8	233.3	361 (1917)	18 (1918)	90.0	1964 July 26
Magra	b	0.3	0.5	0.3	0.4	0.7	1.7	3.8	3.4	1.7	0.3	0.0	0.3	13.4	195 (1917)	59 (1949)	265.9	1933 Aug. 7
Palana	10 a	3.1	6.1	3.3	4.1	6.9	17.5	67.1	91.2	22.9	1.3	3.1	1.3	227.9	344 (1917)	21 (1948)	152.4	1942 Sept. 6
Naukha	b	0.4	1.0	0.5	0.5	0.8	1.8	5.0	4.8	1.6	0.2	0.1	0.2	16.9	308 (1917)	11 (1911)	244.1	1933 Aug. 7
Gajner	45 a	3.3	6.1	4.6	5.6	9.9	25.4	80.8	104.9	33.5	9.1	0.3	3.1	286.6	191 (1917)	34 (1908)		
Bikaner (Distt.)	b	0.3	0.6	0.5	0.6	1.0	2.0	4.6	5.3	2.0	0.3	0.0	0.3	17.5	293 (1917)	24 (1918)		
	45 a	3.8	5.3	3.1	2.8	14.0	27.7	73.1	94.5	32.8	5.6	0.3	2.8	265.8	16.2 (1917)			
	b	0.4	0.6	0.4	0.3	1.1	2.1	4.2	4.7	1.9	0.3	0.0	0.2	16.2				
	45 a	2.3	7.1	4.3	3.6	6.6	24.9	65.5	94.5	22.3	3.6	0.5	0.5	237.7				
	b	0.2	0.7	0.5	0.4	0.8	1.9	3.7	4.7	1.3	0.3	0.0	0.3	14.8				
	a	3.6	6.2	4.1	4.3	9.9	24.9	74.9	91.2	30.8	5.5	0.9	3.3	259.6				
	b	0.4	0.7	0.5	0.5	0.9	1.9	4.4	4.6	1.8	0.3	0.0	0.3	16.3				

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 upto 1965. ** Years given in brackets.

APPENDIX II

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

Range in mm.	No. of years	Range in mm.	No. of years
1-100	2	401-500	4
101-200	14	501-600	1
201-300	18	601-700	0
301-400	10	701-800	1

APPENDIX III

Normals of Temperature & Relative Humidity in Bikaner

Month	Mean daily maximum temperature	Mean daily minimum temperature	Highest maximum ever recorded	Lowest minimum ever recorded	Relative humidity
	°C	°C	°C	°C	%
Jan.	22.1	5.2	31.1 1952 Jan. 23	-4.0 1964 Jan. 26	67
Feb.	26.0	8.2	37.2 1953 Feb. 28	-2.2 1950 Feb. 11	56
March	31.8	14.7	42.8 1924 Mar. 25	-0.6 1898 Mar. 4	46
April	37.8	21.0	47.2 1925 Apr. 24	8.3 1953 Apr. 1	30
May	39.4	27.6	49.4 1914 May 28	16.7 1930 May 20	34
June	41.5	29.3	48.9 1897 June 10	17.8 1888 June 4	50
July	38.4	28.1	47.8 1963 July 7	20.6 1931 July 5	67
Aug.	36.1	26.7	43.3 1889 Aug. 13	21.1 1889 Aug. 27	72
Sep.	36.7	25.2	43.9 1915 Sep. 11	19.1 1924 Sep. 30	68
Oct.	35.5	18.8	42.2 1951 Oct. 5	7.6 1964 Oct. 30	49
Nov.	30.4	10.1	37.2 1943 Nov. 2	0.6 1937 Nov. 30	47
Dec.	24.7	5.6	33.3 1963 Dec. 12	2.8 1950 Dec. 28	57
Annual	33.4	19.2			54

* Hours I.S.T.

APPENDIX IV

Mean Wind Speed in km/hr

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Annual
3.4	4.0	5.6	6.4	9.2	12.1	11.5	9.8	8.5	4.7	2.6	2.6	6.7

APPENDIX V

Special Weather Phenomena in Bikaner

Mean No. of days with	January	February	March	April	May	June	July	August	September	October	November	December	Annual
Thunder	0.2	0.6	0.0	0.9	1.2	3.0	2.0	1.1	0.4	0.4	0.0	0.0	9.8
Hail	0.0	0.1	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Dust-storm	0.3	1.2	1.7	2.0	3.0	5.0	2.0	1.3	0.6	0.6	0.0	0.2	17.9
Squall	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.3
Fog	2.0	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	3.9

CHAPTER II

HISTORY

PRE-HISTORY

As we have seen in the previous chapter, the Great Indian Desert (also called Thar) of which Bikaner district forms a part, is believed to have been the bed of a sea, in the pre-historic periods termed by geologists as Jurassic, Cretaceous and Eocene. No date can be assigned as to when it was converted into a dry land. It is surmised that it happened probably sometime in the upper Tertiary. Many centuries after the marsh had completely dried up, some vegetation began to spring up resulting in clusters of shrubs and trees. Many more years rolled by before some habitation was possible in this region, but when and how it happened is not known. The spread of desert in this region is ascribed to comparatively a much later period of history, between 4000 to 1000 B.C. Local tradition regards the holy tank at Kolāyat as old as the creation itself.

PROTO-HISTORY

The early hymns of *Rigveda* make a frequent mention of three rivers of the Vedic age; namely, Sarasvati, Drishadvati and Shatadru. Of these Sarasvati was a river par-excellence (*Naditama*), the banks of which reverberated with the chants of Vedic hymns sung during the performance of many a *Yajnas*. The location of the river is mentioned in between Sutlej and Yamuna and it is identified with modern Ghaggar. It constituted, in the Vedic age, a large river-system, wherein flowed Drishadvati (now identified with Chitang) and Shatadru (modern Sutlej) which rolled on into the ocean. This sacred river alongwith its tributaries flowed into the northern part of the erstwhile Bikaner State, which during those days was a fertile valley. In course of time this river-system dried up and the dried up bed is clearly traceable in a westerly direction in Bikaner division till it reaches Hanumāngarh which was known as Bhatner.

The valley of Sarasvati and the Drishadvati is very rich in archæological finds, which are of great chronological and cultural value. These finds show us glimpses of several millennia of Indian history right from the Harappa period (c. 2300 B.C. to 1750 B.C. as per radio-carbon dates) to comparatively recent times¹.

1. Banerjee N.R., *The Iron Age in India*, Delhi (1965), pp. 14, 96, 223, 233, 240.

Dr. L.P. Tessitory, who had explored the dried up bed of Hakra (recognised as ancient Sarasvati) in 1917-1919, found that the mounds, known locally *ther* or *theri* were bare of all vegetation and covered with pieces of broken pottery. He regarded them as Buddhist funeral places of the ancient Yaudheya tribe. Very interesting relics and even complete block of red-burnt clay were detached by Dr. Tessitory from house walls in the villages of Badopāl and Rangmahal. He considered these terracotta sculptures as an off-shoot of the Buddhist art of Gandhara. But later explorations, done by Sir Aurel Stein in the year 1941, in the dried up bed of Hakra, have brought to light a number of pre-historic sites in the region of the erstwhile Bikaner State and particularly, the erstwhile Bahāwalpur State¹ now in Pākistān. Sir Stein is of the view that the area was the seat of a great civilisation now shrouded in mystery, due to its burial under the sand. Sir Stein and Ghosh had found numerous mounds strewn with pot-sherds, large and well-built bricks and actual remains of kilns.

Archaeologically these pottery remains, dug out in the region can be assigned to at least three stages² of civilisation due to their variety and vividness. The first type of pottery is identical with, or similar to that found at Harappa and Mohanjodaro, and is often painted. The second type is a grey-ware painted with black designs and belongs to a later period. The third type is painted black-on-red. All these types were not found at a single site, but lay scattered under different *theris*. As far as we are concerned all these cultures flourished outside the present limits of the district; but the fact that the remains of Harappa culture and later Vedic culture were found side by side in this valley suggests the possibility that the two cultures might have come in close contact in this region.

In 1946, Herman Goetz made further studies of the mounds in the region and opined, "it seems much more probable that they are the last remnants of crude mud-houses and forts such as are constructed in this part of India upto the present day. When abandoned or destroyed they slowly disintegrated into these mounds, a process which can be observed even now in the ruins of Hanumāngarh (Bhatner)".³

1. *The History and Culture of the Indian People*, Vol. I, George Allen & Unwin Ltd., London (1957), p. 73.
2. *Bulletin of the National Institute of Sciences of India*, September 1952, p.47.
3. Goetz Herman, *The Art and Architecture of Bikaner State*, Oxford (1950), p. 25.

Dr. Goetz holds that these remains cannot be ascribed to that of Mohanjodaro canon, but to a later type developed from it.

The weight of opinions, favouring ascribing these remains to post-Harappan period ranging between circa 1500 B.C. to 600 B.C. is greater. The painted grey ware occurring in this region, has helped the archaeologists in ascertaining the chronology of similar remains found at other places of excavations like Hastināpur, Ujjain and Kosambi (Kosam village near Allahabad). From this similarity it is assumed that this type of ware is associated with the Aryans¹, the black and red ware is thought to be of Dravidian origin². Dr. Banerjee³ is of the opinion that "the users of the *de-luxe* painted grey ware ceramic, who have been provisionally identified with the Aryans and who imbibed and adapted several other ceramic traditions then extant in the country, including a plain variety of the wide spread black and red ware, were responsible for the introduction of the Iron Age in India about 1000 B.C. in the northern plains, and may have transmitted it by degrees to south India as well as through the megalithic folks a little later".

These archaeological finds and the cultural history of the region leads us to assume that in the hoary past the people inhabiting this district were perhaps not dissimilar in their ways of life to their neighbours at the border.

ANCIENT HISTORY

In the *Mahabharata* there are frequent references to *Kuru-Jangalah* and *Madreya Jangalah*. We may infer, from the old geographical references that Bikaner district formed part of Jangal territory. Unfortunately nothing much has been mentioned in the *Mahabharata* about the civilisation extant in this region. Nothing is known whether it came under the suzerainty of the various imperial powers that followed namely, the Mauryas, the Greeks, the Kushanas, the Guptas, or the Pratiharas. We give below brief account of some of the tribes that seem to have held sway over this territory in the remote past.

1. Banerjee N.R., *op. cit.*, p. 14.
2. Subba Rao B., *Personality of India* (1958), pp. 117-125.
3. Banerjee N.R., *op. cit.*, p. 233.

The Yaudheyas

The untamable and warlike people known as the Yaudheyas are described in the *Ashtadhyayi* of Panini as *ayudh-jivi-Kshatriyas* or depending upon arms for their livelihood. The heart of the Yaudheya territory may have been the eastern Punjab, but they dominated over the adjoining tracts of the Uttar Pradesh and Rājasthān.¹ If they can be identified with the Johiyas who inhabited the Johiyawar territory, then it is probable that the northern portion of the erstwhile Bikaner State remained under their rule.

The Gurjara-Pratiharas

It is held by several scholars that the Gurjaras first settled in the Punjab and then moved to northern portion of the Bikaner State and at last settled in Marwar. There they founded the Pratihara dynasty.² It cannot be ascertained, in the absence of further researches, as to how long they lived or stayed in this region but it is certain that they acquired and consolidated a vast kingdom.

The Chahamanas and the Bhatīs

The Pratiharas were followed by Chahamanas (Chauhans), who settled themselves in a more promising part of the territory, east of the Thar desert. They founded their kingdom around Shakambhari (Sambhar). In the meantime, behind the Chahamanas were advancing Bhatīs, another tribe in the Thar desert, from the north-west of the territory of the erstwhile Bikaner State.³ They were defeated by the Pratihara King Siluka. They founded the kingdom of Derawar, the capital of which was shifted to Lodorva and ultimately, to Jaisalmer. This new kingdom was much larger than the erstwhile Jaisalmer State and extended⁴ from Bhatner (Hanumāngarh in Gangānagar district now) and Bhatinda up to the vicinity of Gujarat.

MEDIEVAL PERIOD

Until the second half of the 10th century *Jangaladesa* formed⁵ a neglected frontier province of the empire of Kannauj. The later Pratihara rulers were not strong enough to look after such a poor country. About 973 A.D. Vīgraharaja Chauhan II threw off the

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suzerainty of the last Pratiharas. In the meantime the kingdom of Ghazni was founded and its rulers followed the aggressive policy of the Umayyads and early Abbasids, of encroaching on the "infidel lands". Thus the Thar desert became a theatre of war from time to time. May be that it remained a neutral zone through which trade between India and West passed, because several old trade routes lay in this area of the desert. Besides this, the armies or bands of tribes also passed through this way.

We know now that due to the important routes lying through this area, many types of people came, stayed and passed through this region. Some of them might have established themselves here. After the advent of the Pratihara dynasty, many new principalities emerged. Different Rajput clans came into prominence viz. Chalukyas (Solankis), Chahamanas (Chauhans), Parmars, Kachhawahas and others. But it cannot be ascertained as to who ruled in this part of the territory during those days. Towns and villages sprang up studded with temples, artificial lakes were constructed in the desert areas to convert it into an oasis. They fortified their hillridges to safeguard their hearth and home.

The different tribes who inhabited the territory occupied by the erstwhile Bikaner State during medieval ages were the Jats, Johiyas, Bhatīs, Mohils, Sankhalas etc. They lived as semi-autonomous tribes—especially the Jats, who formed the seven different clans amongst themselves (1) Punia, (2) Godara, (3) Saran, (4) Kaswa, (5) Beniwal, (6) Sihag, and (7) Sohua, but Tod enumerates only six Jat clans i.e., Punia, Godara, Saran, Asaich, Beniwal and Johiya though this last clan is by some termed a ramification of the Yadu-Bhati Rajputs. They formed cantons and each canton bore the name of the community or clan, and was further divided into districts. These people led pastoral life, their wealth being their cattle, and they used to quarrel among themselves.

The Chauhans probably had this area or a portion of it under their sway during their heyday which is evident from the stone-inscriptions engraved on several cenotaphs. Some coins of the Chauhans have also been found and G.H. Ojha¹ records that he had discovered a copper coin of Ajayadeva Chauhan in the vicinity of Hanumāngarh (then Bhatner, now in Gangānagar district) and on this basis, it can only be assumed that the Chauhans had some kind of influence in this area.

1. Ojha, G.H., *The History of Rājputāna*, Vol. V, Part I, Ajmer (1939), p. 70.

1. *The History and Culture of the Indian People*, Vol. II, Bombay (1960), p. 166.

2. *The History and Culture of the Indian People*, Vol. III, Bombay (1962), pp. 61-65.

3. Goetz Herman, *op. cit.*, p. 28.

4. *ibid.*, p. 29.

5. *ibid.*, pp. 30-31.

Towards the south-east and east of the Bikaner district were settled in those days, the Rajputs known as Mohils and the area inhabited by them was called *Mohilyati*. These Mohils have been regarded as one of the branches of the Chauhans.¹ Their leader was called a *Rana*. This has been recorded by Nensi in his *Khyata*. Later, these *Ranas* of *Mohilyati* had developed a feud with the Rathors of Jodhpur. Rao Jodha (the founder of Jodhpur) had attacked and killed Ajit Singh (Mohil). Many battles were fought and the Mohils were rendered weak due to these battles and other internecine feuds. Weak Mohils were attacked by the Jodhpur army and their territory within the Jodhpur boundary sacked and confiscated. But the Mohils did not sit idle. They approached Sultan Bahlol Lodi and with the aid and co-operation of the Muslim General, Saranga Khan, they regained their lost possessions from the Rathors of Jodhpur.²

Another important Rajput clan which was inhabiting this tract, was the Sankhla (Paramara). They were occupying a portion around Janglu before the advent of Rao Bika (son of Rao Jodha and the founder of Bikaner). The area to the west and north-west of the erstwhile Bikaner State was under the possession of the Bhatīs who had the strong principality of Pugal, with whom later on, Bika had to enter into a blood-relationship. Bika had to contend against all these tribes in order to establish himself on a permanent footing.

The dynastic history of the rulers of the erstwhile Bikaner State begins with the heroic exploits of Rao Bika, son of Rao Jodha, the ruler of Marwār. He was born³ in 1438 A.D. Rao Jodha had seventeen sons born of six Ranis. An interesting tale is told of how Rao Bika founded a kingdom and perpetuated his name for ever. It is said that Rao Bika one day entered the durbar late and took his seat beside his uncle, Rao Kandhal with whom he started talking in whispers. Seeing this, Rao Jodha jestingly asked, "what was this secret talk between the uncle and the nephew—were they considering conquering new territory?" Kandhal took it as a challenge and replied that this would also be accomplished with his blessings. It so happened

1. Ojha, G.H., *The History of Rājputāna*, Vol. V, Part I, Ajmer (1939), p. 70.
2. *ibid.*, p. 71.
3. *ibid.*, p. 90. From another account, the date is 1440 A.D. while P.W. Powlett in his *Gazetteer of the Bikaner State* (1874) gives as 1439 A.D. For the subsequent rulers also, the dates of birth, death etc. given by different writers are at variance with each other.

that at the durbar was present one Napo, a Sankhla Rajput who, intimated that some Sankhla Rajputs had abandoned a part of Jānglu territory lying to the north of Jodhpur as they were hard pressed by Bloach incursions. He suggested its occupation. The suggestion was welcomed and Jodha urged his son to launch on this expedition. An expeditionary force was accordingly organised comprising 100 horse and 500 foot. Accompanying¹ Bika were his uncles Kandhal, Rupa, Mandan, Mandala and Nathu, his brothers Joga and Bida, Napo the Sankhla, the master of the horse (Sahni) and a number of *Mutsaddis* (writers). According to Powlett, Bika was provided both with a civil and military staff

The tract which now forms the Bikaner city was perhaps abandoned and its occupation would present no problem but towards its north-west was located a powerful Bhati kingdom; towards its north-east, the Jats had their small settlements. Hisār was the headquarters of the Governor of the Delhi Sultan. On other sides were scattered small chieftainships weak in offensive, but well entrenched in their desert fortresses to withstand aggression.

Bika marched via Mandauwar, to Deshnok where there lived a famous Charan woman Karniji, believed to be endowed with supernatural powers. She exercised considerable influence over the neighbouring rajas especially Shekha, the Bhati Rao of Pugal. Bika paid his respects to her who gave her prophetic blessings in the following words "Your power and pelf will be higher than your father's and many a chief will touch your feet." After this, Bika moved to Chandasar and then to Koramdesar where the idol of *Bhairun* was installed on the bank of a *talao* by him. There he declared himself as the raja. Reaching the deserted tract of Jānglu he took possession of 84 villages left by the Sankhlas and started strengthening his army and extending his domination. It is said that on the advice of Karniji, he allied himself with Shekha Bhati, the Rao of Pugal by marrying the latter's daughter. This alliance gave a foothold to Bika in the Bhati territory. In 1478 A.D. Bika wanted to construct a fort at Koramdesar which was objected to by Rao Shekha. Rao Bika paid no heed to his protestations which led to an estrangement with the Bhatīs. Under the leadership of Kalikaran Kehrot, the son of the Rawal Kehar of

1. Ojha, G.H., *The History of Rājputāna*, Vol. V, Pt. I, Ajmer (1939), p. 91.

Jaisalmer, the dissatisfied Bhatīs mustered a strong force and a fierce battle took place in which Bika won the day, but the Bhatīs continued their harassing tactics with the result that the Rao gave up his plan to build the fort at Koramdesar and in consultation with Napo Sankh'a, who was believed to be great observer of omens, chose another site. Thus were laid in 1485 A.D., the foundations of the fort around which, three years later, in S. 1545 (1488 A.D.) the construction of the city of Bikaner was undertaken.

With the establishment of a permanent capital by Bika, the neighbouring tribes began to feel that a new star had arisen in the political firmament of the area. Some of them especially the Godara Jats acknowledged his sovereignty. The allegiance of the Godaras brought Bikaji into conflict with the Sarans, another tribe of the same race who approached the powerful Chief of Sewāni to help them. Fight soon ensued between the two Chiefs resulting in an all-out victory for Bika.

As has been stated earlier, the country of the Mohils had been conquered by Jodha and was put under the charge of Bida, brother of Bika. But soon troubles arose. The Mohil chief and Sarang Khan, the subedar of Hisār, combined against him. Bida had offended his father. Finding himself alone and helpless, he asked his brother to render necessary help. He took refuge with his brother who after raising strong army of 8000 men, marched against the enemy. Sarang Khan had to retire in haste to his headquarters after seeing an approaching defeat at the hands of Kandhal. The Mohil country was restored to Bida but he held it as a feudatory of his brother. Dissatisfied Sarang Khan, however, in order to wipe out the blot of the retreat collected a large force and attacked the Rathor chief Kandhal who had created a havoc in the Hisār territory. The latter fought gallantly but fell in action. On hearing this sad news of the demise of his dear uncle, who had been like a second father to him, Bika took an oath to eat bread only after he had avenged the death of Kandhal. He sought help from his father, Jodha, who sent timely help. The combined armies of the Rathors met the enemy at the village of Jhans or Jhansal. Sarang Khan was killed and his army was put to flight.

Bika was asked by his father not to claim succession to his estate but to remain content with what he had won. Bika, however,

wanted to possess the heirlooms and the insignia of royalty brought from Kannauj, in lieu of his foregoing the claim for his father's patrimony. It is said that Jodha agreed that these would be sent to Bikaner. But after Jodha's death when Bika demanded them from his successor Rao Suja, the latter showed his reluctance; Bika had to take recourse to arms and invaded Jodhpur which was taken and given up to plunder. Suja took refuge in the fort which was besieged. His mother, then, intervened and came to see Bika, who agreed to raise the siege only if the heirlooms and the royal insignia were handed over to him. The famous siege of Jodhpur was thus raised and Bika brought the coveted articles in triumph.

Bika's younger brother, Bar Singh, the administrator of Merta, used to plunder the adjoining areas of Ajmer and Sāmbhar. The Subedar of Ajmer, Mallu Khan, captured him for plundering his villages. The combined forces of Duda, Suja and Bika advanced and the Subedar released Bar Singh without putting any fight against the approaching army.

Bika in order to prevent further inroads on his territory by the thakur of Khandela, Rirmal, had to measure swords with him. The thakur could not withstand the attack, and fled, leaving the town at the mercy of Bika's troops who ransacked it getting much spoil. The last expedition led by Rao Bika was against Rewāri in which he successfully occupied a considerable portion of the territory which belonged to the Sultan of Delhi. Rirmal the thakur of Khandela, approached the Sultan for help to push back Bika's forces from Rewāri. The Sultan of Delhi sent 4,000 Imperial troops under Nawab Hindal to oust him from the Imperial territory. This joint army attacked Bika who fought with rare courage and valour and inflicted a crushing defeat on the enemy killing both the commanders—Hindal and Rirmal. This was the last of Bika's military exploits after which he ruled peacefully till his death and without any molestation from neighbouring chiefs. At the time of his death which took place in 1504 A.D. his rule is said to have extended over 3,000 villages.

Rao Lunkaran

The second ruler, Nara (Naraji) was born¹ in 1469 A.D. and succeeded his father in 1504 A.D. But he died childless and was succeeded by his brother Lunkaran (born in 1470 A.D.) in the year 1505 A.D. His first expedition was against the chieftains who had

1. Another source gives this date as 1468 A.D. See Ojha, G.H., *op. cit.*, p. 111.

been deprived of their lands by Bika and after his death they rose in revolt to wrest the same from his successor. Lunkaran marched against Man Singh Chauhan of Dadrewa (in Rājgarh tahsil of Churu district) in 1509 A.D. and defeated him after a siege lasting seven months. In those days Fatehpur was held by the Kayamkhanis. Daulat Khan was its ruler at this time who had a feud with Rangkhan. Taking advantage of this feud, Lunkaran invaded Fatehpur in 1512, and defeated them. He annexed 120 villages of their territory¹. Later on, he attacked Chayalwara territory situated near Hisār and Sirsa and after defeating Chayal Rajputs annexed a large portion of their territory. He married a daughter of Rana Rai Mal of Mewār in S. 1570 (1514 A.D.).

The other event of importance during his rule, was his war with Jaisalmer in which Rawal Jet Singh² was taken prisoner and his capital Jaisalmer was plundered. Later the Rawal was released and peace was concluded. The Rawal's daughters were married to Lunkaran's sons. Sometime later Lunkaran was killed fighting bravely along with his three sons against the overwhelming forces of the Nawab of Naraul when his own supporters deserted his banner.

Rao Jet Singh

Jet Singh (born in 1489 A.D. or v.s. 1546) was the eldest son of Lunkaran. Learning of the death of his father in battle due to treachery in S. 1583 (1526 A.D.), he applied himself energetically to the task of punishing those who had deserted his father. He expelled Kalyan Mal³ son of Thakur Udai Karan Bidawat as a punishment for his treachery. He then chastised the Johiyas. The principal Johiya, Tihun Pal, fled towards Lahore. He then sent an army to attack Dronpur where upon Kalyanmal, the son of Udai Karan fled and took refuge with the Khan of Nāgaur. Jet Singh entrusted Sanga the grandson of Bida with the suzerainty over Dronpur.

Another event of importance worth mentioning in the reign of Jet Singh was the help he rendered to his nephew Sanga against his step-brother Ratan Singh the ruler of Amber. The chieftains of Amber taking advantage of their ruler's addiction to drinking were gradually appropriating crown lands and chaotic conditions prevailed in the

1. Ojha, G.H., *op. cit.*, p. 113.

2. In some chronicles, the name of the Rawal is given as Devī Das.

3. Powlett gives this name as Udai Karan instead of Kalyanmal.

realm. Jet Singh sent an impressive army of 15,000 men led by Sardars of repute with Sanga, who captured a large territory but considered it wise to found a new principality at Sanganer. The army of Bikaner returned without any engagement. Jet Singh also rendered military aid in person to Ganga the Rao of Jodhpur, who wanted to remove his uncle, Shekha, a claimant to the Jodhpur *Gadi*. Jet Singh sent 6,000 soldiers for Ganga's help. Shekha took help from the Khan of Nāgaur. A bitter fight ensued. The Khan of Nāgaur, however, withdrew his forces suspecting some secret understanding between Ganga and Shekha. Shekha was accordingly defeated.

In 1534¹ A.D. Kamran, son of Babur, came down to Bhatner (Hanumāngarh) with a large army. He took the place and marched upon Bikaner. There was considerable panic in the town at the approach of the invading army. Jet Singh retreated to a safer place and attacked Kamran's forces suddenly at night. The Musalmans fled panic-stricken.

A few years later Jet Singh had to face the fierce attack of Maldeo, chief of Jodhpur, son of Ganga. There are different versions of the fight that ensued. The result, however, was that Jet Singh was killed in the battle, his fort was captured and, half of his territory was annexed by Maldeo. The family of Jet Singh had been escorted to Sirsa bereft of their capital and their fort.

Rao Kalyan Singh

The fortunes of the Bikaner dynasty, as Powlett remarks, had never before or since touched such a low ebb when Kalyan Singh the eldest son of Jet Singh occupied the *Gadi*. After establishing himself at Sirsa, Kalyan Singh started making endeavours to wrest his patrimony.

It was, however, more the political change at Delhi that helped Kalyan Singh in the achievement of his objective than his military might. His brother Bhim Raj who had left for Delhi to serve in the Imperial army under Humayun was able to gain the favour of Sher Shah who later wrested the Mughal throne from Humayun. It was again the turn of fortune which induced Maldeo first to offer help to Humayun against Sher Shah, and later send an army against him, thereby incurring the hostility of both. Sher Shah, who was on the look out for an opportunity to crush Maldeo and thereby nip in the

1. From another account, the date is 1538 A.D. See Ojha, *op. cit.*, p. 131.

but any danger of Rajput confederacy against him readily acceded to the request of Nag Raj the Vazier and Kalyan Singh to march against Jodhpur to help him restore his kingdom. The influence of Bhim Raj also worked in his favour. A huge expeditionary force was organised which set out towards Jodhpur in January 1544. Rao Kalyan Singh also marched with his forces from Sirsa and joined the Imperial army on the way. The two armies stood face to face for about a month. By a simple strategy Sher Shah was able to sow seeds of discord in the rival army with the result that Maldeo losing faith in his Sardars, fell back closely followed by Sher Shah's army. Near Samel both the forces clashed and the Muslim army emerged victorious. Sher Shah captured Jodhpur in April 1544. It is stated that Nagraj persuaded Sher Shah to anoint Kalyan Singh with his own hands. The Rao was at liberty to return to his own capital but before doing so he conferred the title of 'Restorer of Lost Land' (*Gai Bhum Ka Bahru*) on his brother, Bhim Raj as gratitude for the service rendered by the later. The re-occupation of the capital posed no problem as it had already been vacated by the forces of Maldeo of Jodhpur. Shortly after, Thakur Singh brother of Rao Kalyan Singh was able to capture Bhatner fort from the Chayals by a clever stratagem.

Kalyan Singh after the recovery of Bikaner sent a force to assist Jaimal, son of Biramdeo, ruler of Merta who had rendered him invaluable help in the restoration of Bikaner, against Maldeo who had recovered Jodhpur by then, and was attempting to occupy Merta. The combined armies of Bikaner and Merta forced Maldeo to flee leaving Merta intact in the hands of Jaimal.

Tabkat-i-Akbari mentions that after a rupture with Akbar, the denigrated Prime-Minister Bairam Khan, stayed at Bikaner for some time as a protege of Kalyan Singh.

Some dacoits plundered the Imperial treasury at Machali village in Bhatner pargana. Under orders of Akbar, the Subedar of Hisār invaded Bhatner then in occupation of Thakursi and after a long siege it was overrun. Thakursi, the brother of Kalyan Singh, alongwith his followers was killed after a desperate battle. His son, Bagh Singh, after staying in Bikaner for sometime went to Delhi and entered the service of Emperor Akbar. There he pleased the Emperor by exhibition of his extraordinary strength and prowess on several occasions so much so that the Emperor desired him to ask for any favour. Bagh Singh prayed

for the return of Bhatner fort which was gladly acceded to. Thus Bhatner became re-attached to Bikaner.

In 1570 A.D. Akbar the Mughal emperor went on a holy visit to Ajmer to pay homage to the shrine of Khwaja Muinuddin Chishti. Thence he proceeded to Nāgaur where Rao Kalyan Singh, alongwith his son Rai Singh, waited on him (1570 A.D.). The loyalty and sincerity of both the father and the son was so transparent that the Emperor married Kalyan Singh's daughter¹. His son Rai Singh remained in attendance and later on received high promotions from the Emperor. Kalyan Singh died² in 1571 or according to G.H. Ojha in 1574 A.D. leaving behind ten sons³.

Raja Rai Singh

Rai Singh, the eldest of Rao Kalyan Singh's sons was born in 1541 A.D. He ascended the throne after the death of his father. He had, as stated already entered the Imperial Service, to seek Akbar's favour of maintaining his kingdom. The Khan of Nāgaur was an enemy of Rai Singh and Akbar was also displeased with him. Rai Singh was employed therefore for leading an expedition against the Khan and the latter was defeated.

Rai Singh who accompanied the Emperor on his expedition against Gujarāt displayed great valour. In the long and hard conquest which preceded the conquest of Gujarāt, Bikaner forces suffered heavily losing in battle thirty-three Thakurs and officials of note⁴. It is said that Rai Singh killed Mirza Muhammad Hussain of Gujarāt⁵. His brother Ram Singh had also distinguished himself in this campaign

1. Erskine, *op. cit.*, p. 317. But this event is not alluded to in the *Khyats*, while Firishṭa in his *Tarikh-i-Firishṭa* (translated by Briggs) mentions it on pp. 234 and 260.
2. Erskine, *op. cit.*, p. 317. Dr. G.H. Ojha in *History of Rājputāna*, Vol. V, part I (on p. 156), does not accept this date, accepted by Powlett in *The Gazetteer of the Bikaner State* (p. 22) and holds that as the *Chhatra* of Kalyan Singh, erected after his death, records the date of his demise as *Magh Sud 2, 1630* (24th January, 1574), Powlett's acceptance is wrong. But in the book *House of Bikaner* on page 209 the genealogical table gives this very date i.e. 1571 A.D. This has upset the chronology of certain events occurred during the period.
3. Tod, in his *Annals and Antiquities of Rājasthān*, on p. 1132 mentions that Kalyan Singh had three sons. But Powlett and Dr. Ojha mention ten sons.
4. Powlett, *op. cit.*, p. 22.
5. Tod, *Annals and Antiquities of Rājasthān*, p. 1135.

and was granted a *mansab*. Rai Singh obtained a grant of 52 *paraganas*¹ yielding a revenue of 4,02,06,274 *dams* (about ten lacs of rupees if the *dam* be considered a fortieth part of a rupee). Powlett² is of the opinion that the grants were probably made as much on account of Rai Singh's matrimonial connections with Akbar as on account of his military services.

Rai Singh was next ordered by the emperor to punish Chandra Sen, son of Maldeo of Jodhpur, and an expeditionary Mughal force was sent against him. Sojat and Siryari were taken and Siwāna was besieged. Chandra Sen fled from Siwāna fort, which, however, could not be taken by the Imperial forces and Rai Singh was recalled by the emperor. Later, Shahbajkhan was despatched to Siwana who was successful in capturing that fort.

The Emperor ordered Rai Singh to go to Sirohi with a force to subdue Surtan Deora who had displeased the emperor. Rai Singh marched to Mount Abu and invested the fort at Achalgarh which Surtan was occupying. He captured the Deora and sent him as a prisoner to the Imperial Court at Delhi.

Rai Singh is mentioned as one of those who were sent to Kābul about 1582 A.D. Two years later he served in Bengal. Then, he and Ismail Kuli Khan, one of the successful generals of Akbar, successfully led an expedition against the Baluchis in v.s. 1642 (1585 A.D.) and returned bringing with them the chief men and leaders of the tribe. He was next employed in the Deccan where he was a Subahdar of Burhānpur from v.s. 1642 to v.s. 1649 (1585 to 1592 A.D.). When he was here, he planned and caused his minister, Karam Chand Bachawat to begin the construction of the present fine fort of Bikaner. Its foundation was laid in 1589 A.D. and the work was finished³ in 1594 A.D. In 1586 his daughter was married to Prince Salim⁴ (afterwards the Emperor Jahangir), their son Parwez being one of those who unsuccessfully strove for the empire with Shah Jahan.

After serving in Sind with Khan Khana Mirza Abdur Rahim and in the Deccan with Prince Daniyal, he was made Governor of Surat

1. Powlett, *op. cit.*, p. 23.

2. *ibid.*, p. 23.

3. The exact date has been given by Dr. Ojha after full calculations in his book *The History of Rajputāna*, Vol. V, part I, p. 179.

4. But this event is not mentioned in the *Khyats*, Firishta mentioned it in *Tarikh-i-Firishta*, translated by Briggs, pp. 234 and 260.

about 1596. It is said that Rai Singh had enraged Akbar by not handing over one person named Teja Bagor who had insulted and manhandled Nasir Khan, a father-in-law of Akbar, despite the Emperor's clear orders. Consequently by the imperial orders Bhatner was taken from Rai Singh and given to his son Dalpat Singh.¹

Rai Singh was ordered in v.s. 1660 (1603 A.D.) to accompany Prince Salim to the Mewār expedition against Maharana Amar Singh. The expedition, however, did not take place as Prince Salim did not want to go to Mewār².

Akbar fell seriously ill in September 1605. Rai Singh was called to reach the capital *post haste* by a *nishan*, issued by Prince Salim on 11th Oct. 1605. This is stated to be due to the fact that Raja Man Singh Kachhawaha and Khan Azam who were all-in-all at the court at that time, were manoeuvring to instal Khusrau on the throne as he was the nephew of the Kachhawaha Chief and the son-in-law of the Khan.³ Rai Singh was considered by Prince Salim as the person on whose help and loyalty he could implicitly rely. About a month later Akbar died on 15th October, 1605 and Prince Salim ascended the Mughal throne as Emperor Jahangir. Rai Singh was a *mansabdar* of 4000 but Jahangir raised his mansab to 5000 on his accession. When he set out towards the Punjab in pursuit of Khusrau, Jahangir put the Raja in charge of the travelling harem. Rai Singh, accompanied the harem for a few stages but left them on the way without permission and proceeded to his capital. On the Emperor's return from Kabul, he in 1608 (14th January, 1608) presented himself at court with a *fautah* round his neck, to show his willingness to suffer punishment for his lapses and delinquencies but was again pardoned⁴. Subsequently, he was reappointed

1. Powlett (*op. cit.*, p. 27) and Dr. G.H. Ojha (*op. cit.*, p. 184 in foot-note No. 4) describe this event on the basis of *Dayaldas ki Khyata*, Vol. 2, p. 32. Akbar, in his *Farman* of 22nd *Isfandarmuz*, 40 (Feb. 1595 A.D.) issued to Rai Singh has alluded to Teja (Tijia). See *A Descriptive List of Farmans, Manshurs and Nishans*, Directorate of Archives, Government of Rājasthān, Bikaner (1962), p. 4.

2. Dr. Ojha (*op. cit.*, p. 188-89) mentioned this fact on the basis of *Akbarnamah*, translated by Beveridge, p. 1233-34.

3. Dr. Ojha (*op. cit.*, p. 189-90); Munshi Devi Prasad's tr. *Jahangirnama*, p. 16.

4. Erskine K.D., *op. cit.*, p. 319.

to the Subah of Burhanpur which he governed¹ successfully for several years. He died at that place in 1612. Rai Singh had four sons².

Maharaja Dalpat Singh

Dalpat Singh, who succeeded Rai Singh³ in v.s. 1668 (1612 A.D.) was born in v.s. 1621 (1565 A.D.). Soon after his accession he paid visit to the imperial court to do homage to the Emperor,⁴ who conferred on him the title of *Rai* and invested him with robe of honour. He is said to have incurred the Imperial displeasure by refusing to comply with orders to proceed to Thatta to assist Mirza Rustam⁵.

Dalpat Singh antagonised his own people and this ultimately led

1. In the *Dayaldas ki Khyat*, it is recorded that seeing Rai Singh feeling great agony in his last time, his son Sur Singh, who was also with him there, asked as to what was the cause of the great pain, upon hearing which Rai Singh gave as his last instructions (Powlett, *op.cit.*, p. 28) that Karam Chand his Minister, who had planned to dethrone him in favour of his son Dalpat Singh, should be punished alongwith other conspirators, severely for the misdeeds. The *Khyat* further mentions that having exacted a promise from Sur Singh that his wishes would be attended to, Rai Singh expired in v. s. 1668 (1612 A.D.) Ojha, *op.cit.* p. 196.
2. Powlett, *op.cit.*, p. 28.
3. Tod in his *Annals and Antiquities of Rājasthān* on page 1135 mentions that Rai Singh was succeeded by his only son, Karan in S. 1688 (A.D. 1632). But according to Erskine *Western Rājputāna State Residency & Bikaner Agency Gazetteer* - III A, p. 319-20 and III B, page 83) and Dr. G. H. Ojha (*History of Rājputāna*, Vol. V, Part I, pp. 206-211) Dalpat Singh and Sur Singh were the two Rajas between Rai Singh and Karan Singh.
4. Dr. G.H. Ojha (*op.cit.*, p. 206) on the authority of *Tuzuk-i-Jahangiri* (translated by Rodgers) and *Jahangirnama* (tr. Munshi Devi Prasad) writes that Rai Singh wished that he should be succeeded by Sur Singh, his son from Bhatiyani Rani Ganga; but as he died while in the South, Dalpat Singh became the Raja of Bikaner. Dr. Ojha, further adds that Dalpat Singh went to do homage to the Emperor and was granted the *Khitab* of *Rai*. Sur Singh, who was present at the time in the court, told that his father had wished to make him the Raja instead of Dalpat Singh. The Emperor was enraged at this and told Sur Singh that his father wanted to make him (Sur Singh) a Raja, while he (Jahangir) gave that honour to Dalpat Singh. Dalpat Singh was recognised as Raja by the Emperor.
5. In *Jahangirnama* (Tr. Munshi Devi Prasad) is recorded that Jahangir, after raising the *mansab* of Dalpat Singh from 1500 to 2000, ordered him to accompany Mirza Rustam, an Amir, who was appointed the Imperial Officer to administer the region around Thatta in Sindh. But Dalpat Singh went to Bikaner direct instead of going to Thatta.

to his doom. He estranged the Bhatīs by an unsuccessful attempt to erect a fort in Chudehar near Anupgarh. His brother Sur Singh held Phalodi with 84 villages. He resumed them all with the exception of Phalodi on the advice of his Musahib Purohit Man Mahesh. When Sur Singh visited the Purohit in this connection, the Purohit insulted him by keeping him waiting and ultimately curtly refusing to reconsider the matter. Sur Singh, however, did not revolt there but sent an agent to Delhi and after remaining two months at Bikaner sought permission to take his mother on a pilgrimage of Sauron Ghat on the Ganga. This was readily granted and he met his brother-in-law Raja Man Singh of Amber at Sanganer. While at Sauron, Sur Singh received *farman* summoning him to the Imperial Court at Delhi, procured according to Powlett, no doubt by his agent. The Emperor granted him Bikaner and sent a force under Nawab Zabdin Khan (Ziauddin Khan) to install him as the ruler¹. Dalpat Singh defeated the army at Chhāpar. What the Nawab, however, could not achieve by force of arms was accomplished by intrigue. So great was the unpopularity of Dalpat Singh, that all of his nobles except Thakursi the Baid, an old servant of the State and at that time governor of Bhatner, deserted him to join Sur Singh's banner. Surrounded by his treacherous Sardars, Dalpat Singh advanced to battle seated on an elephant with the Thakur of Churu who acting as his attendant tied his arms from behind in an act of abject treachery, and made him over to the enemy. He was first conveyed to Hisār and thereafter sent to Ajmer and imprisoned there, guarded by 100 men. Thakur Hathi Singh Champawat of Mārwar, who happened to pass through Ajmer, was approached by Dalpat Singh's agent for necessary help in securing his master's release. The Thakur's party comprising 400 men attacked and killed the guards and released him, but they were soon surrounded by the Subedar of Ajmer with a strong force of 4000 men² and were killed to the last man.

This version is given by the local chroniclers, but the Muslim sources give different version according to which, though Sur Singh had displeased the Emperor by the bold manner in which he had preferred his claim before him, yet Dalpat Singh had also annoyed the Emperor by returning to Bikaner without permission, and refusing to accompany Rustam Khan to Thatta as stated before. In 1613 A.D., the Emperor received the news of the defeat of Dalpat Singh whose

1. Powlett, *op.cit.*, p. 29.

2. Ojha, G.H., *op.cit.*, pp. 210-11.

army had then started creating trouble in the Hisār area. Hashim, the *faujdar* of that *Sarkar* caught Dalpat Singh and sent him fettered to the court, where he was executed as a warning to others¹.

Sur Singh

Sur Singh, born in 1594, succeeded his brother in 1613 A.D., under the above mentioned circumstances. He is said to have retained the imperial favour during the whole of Jahangir's reign. He was associated with many important missions during this period. On one occasion he was ordered to join the Imperial forces to suppress Prince Khurram's revolt (1624 A.D.). He was honoured by Jahangir for his loyalty by presenting him with a horse and a *Khilat*². He was appointed to serve at Burhānpur in Deccan in 1626 A.D. Nāgaur *pargana* alongwith other villages and the fort of Maroth, were given to him in Jagir by the Emperor in 1627 A.D. He was sent by Shahjahan on an expedition to Kābul in 1628 alongwith others. He was again deputed to join Imperial army to crush the rebellion of Jhujhar Singh of Orchha. Under Khwaja Hasan he was sent to capture Khanejahan Lodi, a rebel *mansabdar*.

Sur Singh's fair name is besmeared by his revengeful disposition. In fulfilment of the promise made by him to his father on the latter's death bed, he induced the sons of the late minister Dewan Karam Chand to leave Delhi and come to Bikaner. They were appointed Dewans apparently to lull them into security and then within two months of their arrival were surrounded in their houses. All of them fell fighting except one who was then at Udaipur. Sur Singh was not the person to forget or forgive the insult offered to him by Purohit Man Mahesh and Barhat Chauth, in his brother's time. He confiscated their jagirs. He also got murdered Saran Bhartha (Jat) who had rebelled against his father. Sur Singh died while serving in the Deccan in 1631 A.D.

Yet another incident of Sur Singh's time deserves mention. His niece was married to Rawal Bhim of Jaisalmer. After the Rawal's death, she implored Sur Singh to come immediately to her place, fully equipped with forces in order to save her son's life, which was threatened by the Bhatīs. Before Sur Singh could reach Jaisalmer, he received the

news of the murder of the son of his niece. He then swore that no Bikaner Chief's daughter would ever go to Jaisalmer in matrimony, an oath which was observed by his successors¹ too.

Karan Singh

Sur Singh was succeeded by his eldest son, Karan Singh in 1631 who was born in S. 1673 (1616 A.D.)². He had held a *mansab* of 2000 and the governorship of Daulatābād during his father's life time. He proceeded as usual to Delhi to do homage, but does not seem to have made much impression there, as the district of Nāgaur was taken from him a few years later and granted to Amar Singh, a relative of Raja of Jodhpur. Karan Singh was associated with a few campaigns e.g. against Ahmadnagar in 1632 A. D., and later against the Parende Fort and others

The grant of Nāgaur to Amar Singh of Jodhpur caused bad blood between him and Karan Singh, especially because he took possession of village Jākhaniyan also, which had belonged to Bikaner. Karan Singh with the sanction of the Emperor, succeeded in ousting him from Jākhaniyan. The matter being thus settled, peace was maintained in the area as both were detained in Delhi.

In 1652 A.D. Karan Singh's *mansab* was increased and after some time, he was sent to the Deccan to take possession of Jaori³ *pargana* (under Aurangābād Subah) which was granted to him.

Sudarshan, the Rao of Pūgal, rebelled and after a siege lasting a month, Pūgal was taken by Karan Singh. It had been a place of note and importance as it lay between the city of Bikaner and Multān. The Bhatīs had acquired it from the Panwars. At that time it had 200 villages and in Karan Singh's time this number had increased to 561. Now the descendants of Shekha, Bika's father-in-law, claimed division of the estate. It was accordingly divided amongst the descendants of the three sons of Shekha. The eldest son's descendant, obtained Pūgal and 252 villages. The two descendants of the second

1. Erskine, *op.cit.*, p. 320.

2. Ojha G.H. *op.cit.*, p. 229; *House of Bikaner*, p. 209. But Powlett mentions S. 1663 (1606 A.D.) as the year of Karan Singh's birth which appears to be incorrect as in S. 1663 his father Sur Singh was 12 years of age, and procreation at such age appears improbable.

3. Powlett; (*op. cit.*, p. 32) gives this date as 1701 V.S. or 1644 A.D., presumably on the basis of the *Dayaldas-ki-Khyat*.

1. Erskine, *op.cit.*, p. 320. Also see *A Descriptive List of Farmans, Manshurs and Nishans*, *op. cit.*, p. 24 which mentions the defeat of Dalpat.

2. Ojha G.H., *op. cit.*, p. 224.

son obtained Bikampur with 84 villages and the other Varsalpur with 41 villages respectively. The descendant of the third son received Raimalwali with 184 villages.

In the struggle for succession among the sons of Shah Jahan for the imperial throne, Karan Singh sided with Aurangzeb and two of his gallant sons, Kesari Singh and Padam Singh, participated in the principal battles. It is said that they led the imperial van in more than one fight. In the last desperate fight with Dara, they particularly distinguished themselves, in appreciation of which the Emperor with his own handkerchief, brushed off the dust from their persons as they stood before him hot from the battle¹.

An incident occurred in Raja Karan Singh's time which is well known. The Rajput chiefs had joined the imperial army, ostensibly for a campaign beyond the Indus, but by the time they had reached Attock, Karan Singh discovered, with the assistance of friendly *saiyads* in his service, that the emperor Aurangzeb intended to convert all the Hindus by force after they had crossed the river. They, therefore, took counsel regarding the course to be pursued and it was agreed to adopt a course of action in which the Musalmans would insist on their right of precedence as regards crossing of the river, which would result in their reaching the other bank first, leaving the Rajputs on this side of the river. Accordingly the Rajas sent their *harkaras* (messengers) to take possession of the boats, and as had been foreseen, the Musalmans resented this move, as an impertinent act. They drove away the *harkaras* and declared that they would use the boats first. When the boats, containing the Muslim portion of the army had crossed the river, news arrived of the death of the mother of the ruler of Amber. On this pretext all the Rajas delayed their crossing for twelve days, during which period the next step to be taken was anxiously discussed. It was evident to them that, if they were to leave the means of recrossing the river in the hands of the Emperor, the section of the Muslim army would immediately attack them (Rajput chiefs, in their rear in the event of their turning homewards, and consequently they would not escape without severe loss. Comprehending the gravity of the situation they came in a body, to Karan Singh and pointed out that, since his territories were less susceptible to invasion,

1. Erskine, K.D., *op.cit.*, p. 320. G.H. Ojha, however writes on the basis of the Persian sources that Karan Singh remained neutral during the struggle for the succession to the Mughal empire (Ojha, *op.cit.*, p. 243)

he could, with comparatively little danger to himself, save their religion, and bear the brunt of the imperial displeasure by destroying the boats. Karan Singh agreed to do so on the condition that they would all, for one day, greet him by proclaiming *Jai Jangaldhar Badshah* meaning 'victory to the king of the desert'. To this the Rajput rulers agreed, and the Bikaneris then set to work to destroy the boats in the presence of the *ahadi* (imperial messenger). The guilt of leading the league having thus been laid upon the shoulders of Karan Singh, the other Rajas and their followers joined in the task. All the boats were soon rendered useless and the Rajputs set off confidently on their way home.

Aurangzeb returned to Delhi boiling with rage at the impertinence of the Bikaner ruler, whom he summoned to his presence. The call was obeyed, and the Raja's two most distinguished sons, Kesari Singh and Padam Singh, accompanied him. The Emperor had resolved to have Karan Singh murdered in the Durbar; the plot¹ had matured and the assassins were present, but all was frustrated by the formidable appearance of the famous brothers as they sat beside their father. A sign was made to the assassins not to act, and they were only too glad to obey it; and as the Bikaner party was leaving, Aurangzeb praised the ruler's gallant sons specially alluding to the conduct of Kesari Singh in the last great battle with Dara.

Karan Singh was sent to Deccan for service. While in Deccan he served the Emperor faithfully. He died there in 1669, a year after his arrival in Aurangabad.

Maharaja Anup Singh

Karan Singh's eldest son Anup Singh succeeded him to the throne in v.s. 1726 (1669 A.D.). While yet a prince he had been granted a *mansab* of 2000 *Zat* and 1500 *Sawars* by the Emperor Aurangzeb and also right to succeed to the Bikaner *gadi*². For his meritorious services

1. Erskine, *op.cit.*, p. 321-322. It is said that Banmali Das, an illegitimate son of Karan Singh approached the Emperor with the request that if the Emperor could make him Raja of Bikaner, he was ready to embrace Islam. It is said, that Aurangzeb agreed to it and he assured Banmali Das that his father's *gadi* would be given to him, and hence this plot to assassinate Karan Singh. Ojha, *op.cit.*, pp. 247-248.
2. Ojha, *op.cit.*, pp. 253-54. The account given by the Powlett, however, differs from it. Powlett, *op.cit.*, p. 35.

in the Deccan, the title of *Maharaja* was conferred upon him by the Emperor. He distinguished¹ himself in the capture of Golconda in the year 1687 A.D. He was deputed to Adoni as governor in the Bellary district, a name still well known in Bikaner as connected with the glory of its fighting men.

An important event in the Bikaner State occurred whilst the Maharaja was at Adoni. The Bhati Thakurs of Khārbāra and Raimal-wali (now in Gangānagar district) rose in rebellion. They held the fort of Chudher where they were joined by Johiyas. They proved to be formidable for some time but were frustrated in their purpose by an energetic official of the State, Mukund Rai, and the fort was dismantled. A new and a larger fort named Anupgarh was constructed in 1678 A.D. The Maharaja at Adoni was heartily pleased with this success and handsome rewards were conferred on Mukund Rai and his principal associates.

The jagir of Khārbāra was granted to one Bhagchand Bhati who was loyal to the State. The area was often attacked by the Johiyas. Seeing this the Thakur of Mahājan requested the ruler that if Khārbāra was granted to him, he would extend the boundary of the State upto the banks of Sutlej. After obtaining the desired grant, the Mahājan Thakur attacked the Johiyas. The latter were also assisted by the descendants of Bhagchand Bhati. The Thakur was killed and his heir was carried away by them but released him later as he was a minor. But within a year or two the chief of Johiyas at Hisār attacked Sirsa, and that *pargana* was lost temporarily to Bikaner. One Hayat Khan Bhatti who had charge of Bhatner on behalf of the Bikaner State, joined the Johiyas and declared himself independent. Bhatner was, for a time, thus lost to Bikaner.

It is said that Banmali Das, an illegitimate son of Karan Singh, had been intriguing² at the Mughal Court to obtain Bikaner. He succeeded in getting half the *Mansab* of Bikaner through the good offices of Syed Hasan Ali, an important dignitary at the Court. He

1. Ojha, *op.cit.*, p. 271.

2. Ojha, G.H., *op. cit.*, p. 263. However, in the *devali* of Banmalidas in the village Changoi the memorial inscription gives the date of his death as *Samvat* 1734 or 1589 *Saka* but the figure 3 is defaced and can be read as 2 also which gives the corresponding *Saka* date correctly. It is, therefore, possible that the event took place in the closing years of the reign of Karan Singh when Anup Singh was only a prince. The matter needs further investigation.

came to Bikaner with an army. It is said that Anup Singh entertained him lavishly, but Banmali Das who had been converted to Islam killed goats and sheep near the sacred temple of Laxmi Narain, showing little respect for Hindu sentiments. The request to refrain from such a sacrilege went unheeded. Anup Singh resorted to a stratagem to do away with this new danger. He entrusted his father-in-law Lakshmi Das with the task of removing Banmali Das from the scene, deputing Bika Bhimrajot of Rajpura to help him. Both of them approached Banmali Das as rebels against Anup Singh and succeeded in gaining his confidence. Lakshmi Das was able to prevail upon Banmali Das to marry a girl brought by him. This girl was a slave-girl and on the nuptial night, she offered him wine mixed with poison, as was already planned. Banmali Das died consequently and it was given out that he had died natural death. All information to the contrary was suppressed by bribery. Thus was warded off the Emperor's displeasure.

Maharaja Anup Singh died at Adoni in the Deccan in v.s. 1755 (1698 A.D.). Besides being a soldier of high courage and fortune, he was a great scholar of Sanskrit and the regional language. He patronised learning and was himself an author of some books in Sanskrit. When Aurangzeb invaded Deccan, Anup Singh collected Sanskrit manuscripts and established a library in Bikaner. The library is now known as the Anup Sanskrit Library where rare manuscripts and books are preserved.

Swarup Singh

Maharaja Anup Singh's eldest son Swarup Singh succeeded him in 1698 A.D. at the age of nine while at Adoni in the Deccan. From the beginning, he had been at Aurangābād and Burhānpur. He escorted the children of the Maratha leader Ram Raja to the imperial court on 10th July, 1699 A.D. He fell a victim to an attack of small pox and died in 1700 A.D. This short period of his reign is marked for the intrigues at the capital, where the ruling power was exercised by his mother, a Sisodia princess.

Sujan Singh

The next ruler of Bikaner was Sujan Singh a brother of Swarup Singh who came to the throne at the early age of ten in v.s. 1757 (1700 A.D.). Aurangzeb who was in the Deccan at the time called him there and he remained there in the imperial service for about ten years. Aurangzeb died in 1707 A.D. After his death chaotic conditions

prevailed in Delhi. Sujan Singh stayed back in the Deccan and taking advantage of his absence from Bikaner, Maharaja Ajit Singh of Jodhpur invaded Bikaner. Bikaner city was occupied but ultimately due to stiff resistance offered by the Bikaner forces Ajit Singh thought it better to withdraw his troops who had suffered heavily from heat and scarcity of water¹.

In 1719 A.D. Muhammad Shah ascended the throne of Delhi. Maharaja Sujan Singh had returned to Bikaner after about ten years' service in the Deccan. The Royal messengers came to summon him to Delhi but due to uncertain and fluctuating situation at the Imperial capital he did not think it prudent to go there personally. He however sent a force to serve the Emperor.

Sujan Singh at the same time proceeded to Dungarpur and was married there, and on his way back, he spent a month at Udaipur as the guest of the Maharana Sangram Singh II.

It is said that Ajit Singh of Jodhpur whose attempt to seize Bikaner had been foiled earlier planned to seize the person of Sujan Singh while the latter was at Nāl. He sent presents avowedly on the occasion of the birth of the second son to Sujan Singh but instructed his men to capture him if possible. It is said that Sujan Singh got a timely intelligence about the intrigue and returned to the fort from Nāl. The Jodhpur ruler's designs were frustrated.

In v.s. 1787 (1730 A.D.) the Maharaja proceeded to Nohar (now in Gangānagar district) to punish the insurgent Bhatias and Johiyas. The Bhatias submitted without any opposition, surrendered the keys of the fort of Bhatner and presented to him a tribute of Rs. 20,000.

In v. s. 1790 (1733 A.D.) the ruler of Nāgaur Bakhat Singh, the younger brother of Maharaja Abhay Singh of Jodhpur, invaded

Bikaner with a strong force. Prince Zorawar Singh, the eldest son of Sujan Singh was then at Nohar with his force. He marched towards the capital *post haste*, joined the troops sent by Sujan Singh and repulsed Bakhat Singh. When this news reached Jodhpur, Abhay Singh himself joined his brother with a huge army. The combined forces again surrounded the fort but it was so well defended and the Bikaner force put such a stiff resistance, that Abhay Singh could not make any progress. When provisions and water became scarce Abhay Singh approached the Rana of Udaipur to intercede. Consequently a rapport was made and the Jodhpur army¹ was permitted to return to Jodhpur unmolested by Bikaner forces. Again an attempt was made by Bakhat Singh in 1734 to seize the fort but again without success. Maharaja Sujan Singh died in 1735 A.D. at Raisinghpur where he had gone to settle a quarrel between the Thakurs of Bhādra and Bhukarka. He left two sons, Zorawar Singh and Abhay Singh.

Maharaja Zorawar Singh

Sujan Singh was succeeded² in A.D. 1736 by his eldest son Zorawar Singh. He began his career by expelling some Jodhpur troops who had occupied some border *thanas* of Bikaner. Then he put down the disorder prevalent in his State. Sangram Singh, the Thakur of Churu who adopted an attitude of disaffection and disloyalty, was expelled and another Thakur put in his place. Thereupon Sangram Singh went to Jodhpur and sought protection which Zorawar Singh did not like and therefore restored Sangram Singh to his estate. Sangram Singh returned directly from Jodhpur to his estate without paying any homage to the Bikaner ruler, thus reopening the breach. Ultimately Sangram Singh was removed from his Jagir and he openly rebelled against the Bikaner ruler by seeking protection at Jodhpur court.

In v.s. 1796 (1739 A.D.) the Jodhpur army again attacked the Bikaner territory with 10,000 men. The ruler of Bikaner had made adequate preparations to meet the invaders. Meanwhile overtures were in progress between Bakhat Singh of Nāgaur and Zorawar Singh. Bakhat Singh of Nāgaur sent assurances to the Maharaja of Bikaner

1. Powlett (*op.cit.*) on page 41 records that some of the Thakurs of Bikaner State had been taken into confidence by the Maharaja of Jodhpur. The loyalists found out that some of them in co-operation with other people were trying to mobilise against Bikaner a strong force. They communicated with their friends at Bikaner and informed about the plan. One Ramji, a blacksmith of Bikaner cut down the Jodhpur flag and declared that the *an* (dignity) of Sujan Singh and no other man prevailed there. Before he could be slain by the Jodhpur people, he killed five of them. Finally, appreciating the situation, Ajit Singh resolved to withdraw his troops.

1. Different version is given of this episode by the Jodhpur Chroniclers. Ojha, G.H., *op.cit.*, p. 303.
2. Ojha, G.H., *op.cit.*, p. 307. Powlett (*op.cit.*, p. 44) gives this date as 1735 A.D. Likewise the date of death of this ruler also differs and Powlett gives this as 1745 A.D.

of his timely help against the ruler of Jodhpur with whom his relations were now estranged. In order to prove his sincerity in helping Bikaner, Bakhat Singh invaded Merta and wrested it from Jodhpur. Maharaja Zorawar Singh was now assured of Bakhat Singh's help, who invaded Jodhpur in order to compel the latter to come to terms with Bikaner. A contingent of 8000 men under Bakhtawar Singh Mehta was sent from Bikaner to assist Bakhat Singh for the purpose. Perturbed by these developments the Jodhpur ruler Abhay Singh came to terms with Bakhat Singh who on certain terms of compensation, agreed to withdraw. Bakhat Singh sent back the Bikaner contingent with all honour.

Another important event during the reign was the capture of Bhatner which seems to have changed hands very frequently and which was held at this time by the Johiyas. Bhim Singh, Thakur of Mahājan, obtained permission to wrest it from them. This task was successfully accomplished by him in 1740 both by deceit and force of arms and besides the fort, he also got a huge treasure. He evidently wished to appropriate both the fort and the treasure, so the ruler of Bikaner sent a force against him under Hasan Khan Bhatti who invested the fort, and as all the public had turned against the Thakur he was easily driven out.

Abhay Singh the ruler of Jodhpur had felt greatly mortified at his failure to conquer Bikaner as stated above. Seizing the opportunity of allying himself with the disaffected Thakurs, Bhim Singh of Mahājan, Sangram Singh of Churu and Lal Singh of Bhādra, he invaded Bikaner. He reached Deshnok with a very large force in 1740 A.D. Worshipping at the temple of Karniji he wanted the Charans to address him as like the Maharaja of Bikaner, but they refused. Then Jodhpur forces marched against Bikaner and planted their tents in the vicinity of the Laxminarayan temple near the old fort at Bikaner and opened several fronts around the city. The city was thrown open for plunder and property about a lac was looted. The fort remained encircled creating a stalemate. Help was sought secretly from Bakhat Singh of Nāgaour by Zorawar Singh and through him from the Jaipur ruler. Abhay Singh had to raise the siege and he hurried off to look after his own territory because at the urgent request of Zorawar Singh, Jodhpur had been invaded by Sawai Jai Singh of Jaipur, who marched with his large force. Abhay Singh, wanted the Maharana of Udaipur to intercede between him and the Bikaner ruler but the plan did not materialise. Consequently in hot haste, Maharaja Abhay Singh retreated from

Bikaner as Jai Singh of Jaipur had been advancing fast. In the end, Abhay Singh was forced to pay twenty-one lakh¹ of rupees (in cash and kind) to Jaipur Maharaja, as *peshkash*.

Zorawar Singh's last exploit was wresting of Hisār from Imperial troops, which he accomplished in collaboration with Rao Gujarmal of Rewari. He died at Anuppur on 15th May, 1746 A.D. after four days' illness. It was suspected that he had been poisoned.

Maharaja Gaj Singh

Zorawar Singh had died childless, and the claimants to the *gadi* were his cousins Gaj Singh and Amar Singh, both sons of Anand Singh. Eventually Gaj Singh² was selected as ruler of Bikaner and was enthroned³ in 1746 A.D., while the disappointed Amar Singh went to Jodhpur where he associated himself with other mal-contented from Bikaner. Maharaja Abhay Singh of Jodhpur was at Ajmer at that time. Finding the situation favourable for his designs, he organised a large force to invade Bikaner in association with Amar Singh and other discontented sirdars. After harassing the people on the way, the army encamped in the neighbourhood of Bikaner. The Bikaner troops had anticipated such a move from Jodhpur and were ready to face them. No decisive battle, however, was fought and the two armies stood facing each other for months. At length Jodhpur proposed a division of Bikaner territory as the only way of terminating hostilities. This proposal was curtly turned down by Gaj Singh saying⁴, "We will not give up a needle's width of territory, and tomorrow sword in hand, we will further discuss the question of peace". A fierce battle was fought in which Gaj Singh himself played a valiant part and all his nobles fought bravely, resulting in the defeat of Jodhpur troops. This battle took place in v.s. 1804 (1747 A.D.).

On hearing the defeat of his troops Maharaja Abhay Singh was greatly enraged and sent another force which was repulsed at Didwana by the Bikaner troops.

Maharaja Gaj Singh had to march to Sambhar with his troops to aid Bakhat Singh (of Nāgaour) who was engaged, again, in a struggle

¹ Another account gives this sum as twenty lakh.

² Powlett (*op. cit.*, pp. 48-49) and Erskine (*op. cit.*, p. 323) mention Gaj Singh as elder to Amar Singh; but Dr. G.H. Ojha (*op. cit.*, pp. 322-323 and 359) has mentioned him as younger to Amar Singh.

³ Other sources give this date as 1745 A.D.

⁴ Ojha, G.H., *op. cit.*, p. 324.

with his brother Abhay Singh of Jodhpur, who had solicited help from the Marathas to oust him from his possession. Bakhat Singh received Gaj Singh, with great honour. Before any action could take place between the rival forces reconciliation was effected between the two brothers by Malhar Rao Holkar¹, through the intervention of Maharaja Ishwari Singh of Jaipur though it did not end their deep-seated antipathy towards each other. Then Gaj Singh returned to Bikaner. In the following year, Gaj Singh attacked the Bhatīs of Bīkampur and subjugated it and peace was concluded. But as the terms of peace were not honoured, the place was again invested and the Thakur was slain and place occupied. But it was soon recovered by the Rawal of Jaisalmer and amalgamated in his territory. During this period the Maharaja's father, Anand Singh, died.

When Gaj Singh was at Garabadesar, Bhīm Singh, the dissatisfied Thakur of Māhajan was brought to do homage to Gaj Singh by some other Thakurs of note. He was at once forgiven and the Maharaja accepted a *nazar* of an elephant from him.

Maharaja Abhay Singh of Jodhpur died in 1749 and was succeeded by his son, Ram Singh. Ram Singh could rule only for two years, when his uncle, Bakhat Singh (of Nāgaur) defeated him in a sanguinary battle near Merta in 1750 with the aid of Maharaja Gaj Singh. After the death of Ishwari Singh the ruler of Jaipur, Ram Singh was bereft of his main ally and on 11th November, 1750, Gaj Singh and Bakhat Singh at the instance of discontented sirdars of Jodhpur defeated Jodhpur forces at Ludasar tank. Ram Singh counter-attacked them at Sojat but was defeated. After staying for sometime at Jodhpur he again came to Merta. Gaj Singh and Bakhat Singh having come to know of this at once attacked Jodhpur which for four *pahars* was this time given to plunder; and those in charge of the fort surrendered it to them. Bakhat Singh occupied the *Gadi* of Jodhpur and Gaj Singh returned to Bikaner. Soon afterwards he had again to enter Jodhpur territory to assist his ally against Ram Singh who had been able to secure the support of the Marathas. The invading force, however, retreated without fighting and Gaj Singh came home. Bakhat Singh died in 1752 to the great grief of Gaj Singh who recognised at once Bijay Singh his son as the successor of his ally, and rendered him all help. Soon after his accession to Jodhpur *Gadi* Bijay Singh was faced with the danger

1. *Dayaldas ki Khyat*, Vol. II, pp. 71-72, quoted by G.H. Ojha, *op. cit.*, on p. 327.

of an onslaught by combined forces of Marathas under Appa Sahib Sindhia, and Ram Singh who was making every endeavour to capture Jodhpur. As usual the Nāgaur Chief (now of Jodhpur also) would lean heavily on his trusted ally the Maharaja of Bikaner, whom he would not allow to go even though Hisār was overrun by his foes. The armies of Bijay Singh and his allies were very much outnumbered by those of their enemies. The two armies clashed at Gangarada, and as a result of the first assault the invaders were pushed back seven *Kos* to village Chorasān, where the main battle was fought. Numbers prevailed over sheer bravery, and Gaj Singh, Bijay Singh and their allies were defeated. Jodhpur and Nāgaur were besieged simultaneously by Ram Singh and the Marathas. Bijay Singh solicited intercession of the Rana of Udaipur, who sent Jet Singh Chundawat of Salumbar for the purpose, but nothing came out of these efforts except that during these negotiations Jai Appa Sindhia was murdered by two Rajputs at the instance of Bijay Singh. Exasperated at the foul murder of their chief the Marathas attacked the Rajput forces wherein Jet Singh was killed. Though Maharaja Madho Singh of Jaipur had also sent a force to help Bikaner but this was not allowed to proceed by the Marathas. When the siege continued for 14 months, Bijay Singh left the fort and went towards Bikaner. Gaj Singh showed him all respect and hospitality, and both he and his host went to Jaipur to solicit aid from Madho Singh of Jaipur, who played a double game, that is, tried to win over Gaj Singh on the side of Ram Singh by an offer of 84 villages including Phalodi which Ajit Singh had snatched from Bikaner. The ruler of Bikaner was so steadfast in his loyalty to a friend in trouble that he spurned this offer with contempt. When they felt no hope of getting any succour from Jaipur, they returned and while at Reni they came to know that the Marathas had agreed to raise the siege.

In 1752, Gaj Singh went to Jaisalmer to marry the daughter of Rawal Akhai Raj.

When the Maharaja was away from Bikaner in aid of Bakhat Singh, disturbances arose in the realm, and Tara Singh, brother of Gaj Singh was sent to Reni to subdue Lal Singh of Bhādra who had taken to plundering. Tara Singh was killed, but the Maharaja still remained with Bakhat Singh even though Reni was occupied. A camel corps, however, was at once sent off to Reni, but it made no impression. Later Gaj Singh himself went to Reni in person and expelled the Bhādra Chief without any difficulty.

In the year 1752 A.D. the paragana of Hisār,¹ being uncontrollable by Delhi, was assigned by Emperor Ahmad Shah to Gaj Singh, on whose behalf it was occupied by Mehta Bakhtawar Singh and who was soon sent to Delhi to aid the Emperor against the rebellious wazir Mansoor Ali Khan. The emperor was pleased with this timely help and granted a *mansab* to Gaj Singh of 7000 *zat* and 5000 horse in 1753 A.D. On this very occasion, his eldest son Gaj Singh was granted a *mansab* of 4000 *zat* and 2000 horse and Mehta Bakhtawar Singh was created a Rao with a *mansab* of 4000 *zat* and 1000 horse. *Khillats* were also bestowed upon other Bikaner officers.

Gaj Singh was granted the privilege of coining money by the Emperor Alamgir II, and the mint worked till the reign of Maharaja Dungar Singh (1872-87) whereafter the Regency Council (1887-1898) established by the British Government of India closed it during the minority of Maharaja Ganga Singh (1887-1943). Instead, a new silver coin, minted in the British mints in India was made current in the State.

The year 1755-56 A.D. was known as the year of great famine in the history of Bikaner. The ruler was in Jaipur but under his orders adequate arrangements were made for mitigating the distress. Employment was offered to a number of persons when construction works were started.

In v.s. 1828 (A.D. 1772 February) Gaj Singh visited the famous temple of Nathdwara (in Udaipur district). While he was there, he was requested by the Maharana of Mewār to settle the dispute between Mewār and Jodhpur regarding the territory of Godwar, which the Maharana thought was being illegally occupied by the Jodhpur force. But no settlement however could be effected.

In v.s. 1830 (1773 A.D.) the Bhattis again revolted but yielded when a force was sent against them and paid Rs. 40,000 with a promise to pay annual tribute. The heir apparent Raj Singh, and a certain disgruntled Thakurs of the State who were secretly encouraged by the Diwan Rao Mehta Bakhtawar Singh, rose into rebellion. But one by one, all the conspirators deserted the rebellious prince except the Thakur of Churu, with whom he lived at Deshnoke, under the sanctuary of Karniji for five years (1775-1780 A.D.). Then the

1. Ojha, G.H., *op. cit.*, p. 334. According to *A Descriptive List of Formans, Manshurs & Nishans* (*op. cit.*, p. 101) it was assigned by Shah Alam.

prince took shelter in Jodhpur where he was received cordially by Bijay Singh the ruler of Jodhpur. At the request of Gaj Singh, Bijay Singh advised the rebellious prince Raj Singh, to go to Bikaner along with a small contingent of Rajputs. Raj Singh reached Bikaner and was although apparently accorded reception, was arrested by his brothers, at the instance of the Maharaja. The Jodhpur attendants threatened to fight but in the meantime, they got instructions from Jodhpur to abstain from doing so, as the father could do whatever he liked with his son. Then Maharaja also fell ill and sent for Raj Singh and summoning other State officials made over the reins of the throne to him formally. Raj Singh was also enjoined not to punish his brothers. Gaj Singh died in 1787 A.D., and no Rani burnt herself on the pyre. Tod writes,¹ "Raja Gaj had some celebrity from the number of his offspring, having had sixty-one children, though all but six were the 'sons of love'."

Maharaja Raj Singh

Raj Singh ascended the *gadi* in the year 1787 after his father's death. It is said that because of his illness he could not shoulder the bier of his father beyond the gate of the fort.² Due to his illness he left the affairs of the State in the hands of his minister. His health began to deteriorate and feeling his end near, he recognised his brother Surat Singh, who had not taken any part against him as his successor or atleast guardian of his son Pratap Singh. There are different versions as to the cause of Maharaja Raj Singh's death. Tod³ says that he was given a dose of poison by his step-mother (the mother of his younger brother Surat Singh). It is worth mentioning that a man, Sangram Singh Mandlawat⁴ burnt himself on his pyre.

Maharaja Pratap Singh

Pratap Singh was then about six years old. He survived his father but a short time, and though *Khyat* ascribes the death to small pox⁵, there is little doubt that he was murdered by his uncle Surat Singh. According to Tod, the boy was an infant and about a year later was found strangled. It is said, that Surat Singh had done it with his own hands, he having failed to persuade the Mahajan Chieftain to do it⁶

1. Tod, *op. cit.*, p. 1137. But Ojha (*op. cit.*, p. 358) records 18 sons.
2. Powlett, *op. cit.*, p. 65.
3. Tod, *op. cit.*, p. 1138.
4. Ojha, G.H., *op. cit.*, p. 364.
5. *ibid.*
6. Tod, *op. cit.*, p. 1139.

MODERN PERIOD

Maharaja Surat Singh

Surat Singh, son of Gaj Singh, born in 1765 A.D., thus succeeded as Maharaja of Bikaner in 1787. In 1790-91 A.D. he exacted Rs. 95,000 from the Thakur of Churu who was in revolt and Rs. 20,000 from the Bhatti Khan Bahadur of Rājpur. Bijay Singh, ruler of Jodhpur, had received Surat Singh's brother cordially when he had sought asylum with him. Surat Singh now effected a reconciliation with the ruler of Jodhpur.¹ In v.s. 1855 (1798 A.D.) an envoy came from Jaipur to Bikaner State and friendly relations were established between the two States. A Bikaner official was also sent to pay compliments to the Jaipur ruler and who settled some minor boundary disputes. In v.s. 1856 (1799 A.D.) the Maharaja founded a new town, Suratgarh (in Gangānagar district). The Bhattis of Bhatner then rose against the State, thereupon the ruler sent a force of 2000 men to subdue them but they were supported by Zabita Khan with 7000 men. Supplies and reinforcements were obtained without loss of time and the Bhattis were attacked again, and were defeated with great loss at Bigor near Dabli, where the ruler built a fort called Fatehgarh. George Thomas, the Irish military adventurer allied himself with the Bhattis and aided by some Thakurs seized this fort. But later on, it was recovered by a sudden assault led by Rawat Bahadur Singh and others on behalf of the Maharaja and the garrison surrendered.

In v.s. 1856 (1801 A.D.) the State was engaged in a war to obtain a chain of forts in the desert on the Multān-Delhi route of which the fort of Anupgarh was a link. One Khuda Bakhsha Daud-putra who had been expelled from his estate (Mojgarh) by Bahawal Khan of Bahāwalpur approached the Maharaja for aid. Accordingly a large army was sent and several forts such as Balar (renamed Siogarh), Phulra, Mirgarh, Maroth and Mojgarh were captured by the forces of Bikaner.

Mojgarh was then conferred upon Khuda Bakhsha. The army proceeded thence to Bahāwalpur. By this time, however, Khuda Bakhsha had reconciled with Bahawal Khan who agreed to leave him in possession of half of his territory, and persuaded him to sever

1. Ojha, G.H. (*op.cit.*, p. 365) on the authority of *Jodhpur-ki-Khyat* explains in the foot note that Surat Singh had to pay three lakhs of rupees to Bijay Singh of Jodhpur to win him over.

relations with the 'land seizing Rathors'. Khuda Bakhsha did so and paid a sum of rupees two lakhs to the Bikaner force for *faujkharch*.

In v.s. 1859 (A.D. 1802 November) the fort of Khangarh which was said to possess a hidden treasury was captured, it is said, through a stratagem by a Bikaner force under Rai Singh of Mainasar and Ajit Singh of Sela but they could not find the treasure.

A force led by Amar Chand Surana was sent against the troublesome Bhattis in 1804 A.D. After a protracted siege, the fort of Bhatner was surrendered to him by Zabita Khan, the Bhatti Chief. As the fort was surrendered on Tuesday, a day sacred to God Hanuman, the place was renamed as Hanumāngarh.

In v.s. 1863 (A.D. 1807) Maharaja Surat Singh allied himself with Maharaja Jagat Singh of Jaipur to support the claim of Dhonkal Singh to Jodhpur *gadi* against Man Singh. Though both the sides had offered him (Surat Singh) the 84 villages of Phalodi pargana, yet he preferred to side with Jaipur and sent an army of 8000 men which captured Phalodi. Surat Singh joined the main force of Jaipur with his troops, at Palsana. The combined forces encamped at Mithri. Man Singh also with an army of 80,000 troops reached village Gingoli to confront them. After fruitless negotiations for thirteen days a clash took place near Kuchāman in which the Jodhpur forces were routed and Man Singh had to retreat to his capital. The victorious army pursued him, and after giving the city to plunder, the fort was besieged. For seven months the fort was subjected to heavy bombardment. Man Singh finding further resistance of no avail, sent his principal sirdars, for negotiations. The negotiations failed as the Jodhpur sirdars refused to place the State under Jaipur during the minority of Dhonkal Singh. A suggestion was made to Surat Singh that if the Jodhpur sirdars were murdered there would be no hurdle in the way of Dhonkal Singh to rule over Jodhpur. He, however, bluntly refused to resort to such a mean conduct as he had already promised and given a word for their safety. The siege was raised without any ostensible reason though its immediate cause was perhaps the illness of Maharaja Surat Singh which compelled him to leave the scene though he kept his forces there. Both the armies returned to their respective capitals when it became difficult to bear their expenses.

In the meanwhile Man Singh seized the opportunity of winning over Amir Khan Pindāri from Shekhawati. He, at the request of Man

Singh, invested Nāgaur and put to sword the rebellious sirdars of that place.

In the following year Man Singh sent a force under Inder Raj against Bikaner. Inder Raj was repulsed at Phalodi by the two Bikaner officers deputed there. The Jodhpur forces were resisted and their progress checked.¹ But ultimately the Bikaner troops retreated in order with their artillery and other material intact. The Jodhpur army followed them and remained in Gajner for two months. Though small skirmishes took place now and then, it created no effect. Inder Raj was replaced by a new commander Kalyan Mal Lodha on his complaint that the former was colluding with Bikaner. Lodha ordered his main force to march on Bikaner without himself leading them. So no enthusiasm was shown at his move. In the meanwhile Amarchand Surana² came to Gajner with 4000 horse and the two armies clashed. Jodhpur had the worst of the day as their commander Kalyan Mal was captured, though he was later released. He returned with ignominy to Jodhpur and was replaced by Inder Raj again. The siege dragged on and both sides seemed to have been fed up. Surat Singh started negotiations resulting in a peace treaty under which he made over six forts to Jodhpur and paid an indemnity of Rs. 300,000 or as some say two lacs.

It was while the Jodhpur army was half-heartedly besieging the fort that Mr. Elphinstone passed through Bikaner on his way to Kābul. The Maharaja treated him with great respect and requested for the protection of the British Government, but this request could not be granted as it was opposed to the policy then being followed by the Britishers.³

Between A.D. 1809 and 1814 Surat Singh engaged himself in punishing refractory chiefs. In these operations his minister, Amarchand, took a prominent part. The last of these operations was the suppression of the Thakur of Churu, who died when his town was under a siege. Amar Chand was suitably awarded in recognition of his outstanding services. He was, however, soon charged for intriguing with Amir Khan

1. Tod, however, mentions that Bikaner army was defeated but Ojha's (*op.cit.*, p. 386) version is just contrary to it.

2. Ojha mentions that Inder Raj, expressing his gratefulness to Surat Singh for saving his life during the negotiations at Jodhpur earlier, intimated him the vow taken by Kalyan Mal Lodha to capture Bikaner.

3. Erskine, *op.cit.*, p. 325.

against the State. "Though the charge was false, and Amar Chand was really a devoted servant of his chief, and though the Khetri Raja interceded for him and he was ready to pay a fine of Rs. 3,00,000, his enemies prevailed, and he was put to death".¹

In v.s. 1872 (A.D. 1815) Thakur Prithvi Singh of Churu and other ousted nobels again raised their heads, ravaged the country and defied the State. Troops were sent from Bikaner to subdue them. Operations against them were in progress when Amir Khan invaded Bikaner and advanced as far as Chhāpar, but soon went back. The discontented Thakurs alongwith the Pindaris, however, continued their raids and many of them forcibly recaptured their estates.

These circumstances forced the Maharaja to ask for British aid by sending a wakil, Ojha Kashi Nath to Delhi, who negotiated a treaty with the British Resident, Mr. Charles Metcalf on 9th March, 1818. It provided that Surat Singh and his successors were bound to act in "subordinate co-operation" and the British Government agreed to protect his territories and, on application, reduce his rebellious subjects to obedience (APPENDIX I). Shortly afterwards on the request of the ruler to suppress the refractory nobles of the State, the British troops under the command of General Arnold,² entered Bikaner and captured altogether twelve forts and made them over to the State. Bhādra tahsil remained occupied by the British troops taken from the Sikhs of Patiala and was handed over to the State only when the expenses of the expeditionary force were paid to them.

At this time the Bikaner State and the British Government exchanged correspondence regarding the villages of Tibi which the Bikaner State claimed as its own as part of Bhatner. It also claimed forty villages of the Beniwal pargana adjoining Bhādra. Later Mr. Edward Trevelyan was deputed by the British Government to settle the dispute and his decision on both the claims of Bikaner was unfavourable to the State. In S. 1884 (1827 A.D.) when the Governor General Lord Amherst came to Meerut a grand Durbar was held there and Mehta Abir Chand Wakil of the Bikaner State was sent to the Durbar as representative of the ruler and a great *Nazar* from Bikaner was presented and a *Khillat* received. Surat Singh died in 1828 A.D.

1. Powlett, *op.cit.*, p. 69.

2. But in his *Gazetteer of the Bikaner State* (p. 70) Powlett gives his name as General Alner.

Maharaja Ratan Singh

Ratan Singh, the eldest son of Maharaja Surat Singh succeeded him in 1828. Soon after, he sent his troops to Jaisalmer as the Bhatias from that State had carried off a number of camels belonging to the Bikaner State and the forces of both the States indulged in stray skirmishes. As this action of the ruler was in violation of the treaty signed by him with the British Government, the latter intervened and through the mediation of the Maharana of Udaipur, the dispute was settled. In 1830, some of the Thakurs began to give trouble to the Maharaja who applied for British help to reduce them, but it was not needed.

In v.s. 1888 (1831 A.D.) the village of Alwana was renamed Sardargarh after ruler's son Sardar Singh and a fort was built there. That very year, the Emperor of Delhi, Akbar II sent a *Khillat* to the Maharaja through one Jwalaprasad. Though Mughal Empire was now a mere phantom the Maharaja continued to show respect for the emperor and received the *Khillat*¹ consisting of horses, *nagaras* etc. and the title of *Narendra Sawai* but according to the *Administration Report of the State* (1893-94) the title was *Narendra Shiromani*.

During the next four or five years, dacoity became rampant in the State especially on the border area. Some of the Thakurs were actually conniving at it and adopted highway robbery as their profession. The energies of the State were directed mostly towards the suppression of the recalcitrant sirdars. A special force called the Shekhawati Brigade was organised one part of which solely consisted of Bidawats i.e., descendants of Bida, the brother of Bika the founder of Bikaner State. The Bikaner State contributed Rs. 22,000 annually towards its cost. As a result of the operations undertaken by this brigade the situation improved and the Maharaja was able to exercise more effective control over his chieftains.

In v.s. 1892 (1836 A.D.) after erecting a memorial of his father at Devi Kund and repairing those of his ancestors, the Maharaja set out on a pilgrimage to Gaya with 6000 followers. At Gaya, the Maharaja made his followers swear never to commit² infanticide. In

1. Powlett., *op.cit.*, p. 72 and Ojha, *op.cit.*, Pt. II, pp. 419-20.

2. This was an evil custom prevalent among the Rajputs who were compelled to give a rich dowry at the time of the daughters' marriages. Consequently they were forced to bargain. Their indebtedness was often very high. Hence in order to relieve themselves from this state of affairs, they preferred to kill their infant daughters. Ojha, *op.cit.*, p. 431.

1840 the Maharana of Udaipur married the daughter of the Maharaja of Bikaner. In v.s. 1899 (1842 A.D.) a boundary dispute between Lohāsana of Bikaner and Khiali of Jaipur was finally settled by Major Forster, who set up boundary pillars. The dispute had caused great trouble.

Ratan Singh supplied two hundred camels for the Kābul expedition for which he was thanked by the Governor-General of India, who happened to be in Delhi at that time. The Maharaja assisted the British Government in both the Sikh campaigns, receiving on the first occasion two guns in recognition of the services of his contingent. In 1844 the ruler agreed to a reduced scale of duties on goods in transit through his territory, viz., a rate of eight annas instead of as many rupees per camel load.

In v.s. 1902 (1845 A.D.) a dispute with Jodhpur regarding boundary near Sujangarh (in Churu district) was settled. An investigation into the Bahāwalpur and Bikaner boundary dispute was undertaken by Captain Jackson and Cunningham. The outbreak of the Sikh War interrupted the enquiry. However, a final decision was arrived at in 1849 A.D. and the tri-junction of Bahāwalpur, Bikaner and Jaisalmer was also determined.

Maharaja Ratan Singh died in 1851 A.D. During his rule, only two years (1836 and 1837) were prosperous while two others (1834 and 1849) were of acute famine, the rest being average ones. His reign witnessed further strengthening of ties with the British as would be indicated by their help in suppressing the recalcitrant Thakurs and the prevalent disorders in the State. He on his part helped the British in their hard-fought campaign against the Sikhs.

Maharaja Sardar Singh

Sardar Singh, born in 1818, became the ruler of Bikaner in 1851. He found his State burdened with a heavy debt of about Rs. 8½ lacs, caused partly by the necessity of maintaining a large army in order to subdue the turbulent nobles and protect the frontiers from Bahāwalpur, Jaisalmer, Jodhpur and Shekhawati from robbers and dacoits, and partly by long drawn scarcity as witnessed because in the long rule of his father there were only two years of plenty.

The reign of Maharaja Sardar Singh, however, is known for a number of reforms. The insolvency procedure was made more strict as

two aspirants in the near cognate relations, Dungar Singh and Jaswant Singh, and ultimately the British Government approved Dungar Singh as the rightful successor and heir to the late Maharaja.

Maharaja Dungar Singh

Dungar Singh, a descendant of Chhatar Singh, one of Maharaja Surat Singh's brothers, was born in 1854. He ascended the *gadi* in 1872. As he was only eighteen years of age at that time, the State continued to be managed by a council headed by Captain Burton. A few months earlier Captain Bradford had been deputed especially to visit and report on Bikaner. He had recommended a council for administration. Captain Burton was now appointed president of this council. On attaining majority, Dungar Singh was invested with full powers by the Agent to the Governor-General in a magnificent Durbar on 22nd January, 1873.

Maladministration and the discontent of the Thakurs had not, however, ceased. In 1883, an attempt to raise the *rekh* was opposed by the nobles who rose in open rebellion against the Maharaja. One British Officer was deputed to enquire into and effect a settlement of their differences. The Thakurs, however, refused to come to any amicable settlement and it was not until a small British force from Nasirabad had marched a considerable distance towards Bikaner, that the majority of them surrendered to the Political Agent unconditionally. The Bidawats still held together but their leaders eventually gave in, and their forts were dismantled. A Political Agent was permanently located at Bikaner later in 1884, and the differences between the Chief and his nobles were gradually adjusted.

During this Maharaja's reign, the topographical survey of the State was carried out between 1875 and 1880; an agreement with the British Government in India was made in 1879 regarding the local manufacture of salt etc. The Maharaja supplied camels for the Kābul expedition in 1879. The enumeration of population was done in 1881. The summary settlement of the Khalsa villages was completed by P.J. Fagan in 1884-85. Dispensaries, post offices and schools at various places were established.

During his reign of 15 years, the State revenue was almost trebled. When he came to the *gadi*, the revenue of the State was Rs. 5.32 lacs, but when he died (1887) the revenue had risen to over 16 lacs of rupees.

Dungar Singh was the first ruler who tried to modernise Bikaner. He was very eager to extend to his people the benefits of canal irrigation and railway communication. A proposal for a broadgauge railway connecting Sindh with Delhi via Jaisalmer and Bikaner was actually considered. In 1886, he installed electric power in Bikaner when the use of electricity was not very common in India, and scarcely had been introduced in any other State. This will show that Maharaja Ganga Singh, his successor, was correct in paying him tribute in these words, "His high sense of duty, his genuine sympathy and solicitude for his people, and his sagacity and perspicacity laid the foundations for those developments of which we are today gathering the fruits". The Maharaja was also a great builder and Sohan Burj, Sunehri Burj, Chini Burj, Ganpati Niwas, Sardar Niwas and many temples still bear an eloquent testimony to his love of construction of buildings.

The Maharaja died without any issue on 19th August, 1887, having adopted his younger brother Ganga Singh, shortly before his death.

Maharaja Ganga Singh

Ganga Singh who was born in 1880, was formally installed on the *gadi* on 31st August, 1887, after his adoption had been confirmed by the British Government. He had studied at the Mayo College, Ajmer, from 1889 to 1894 and was invested with full powers on 16th December 1898.

During his minority, the State was administered by a council presided over by the Political Agent, and many events of importance occurred in these eleven years. Among them may be mentioned (i) the construction of the railway from the Jodhpur border to Bikaner city (1889-91) and its extension to Dulmera, completed by 1898; (ii) the raising of a camel corps as part of Bikaner forces (1889-93); (iii) the establishment of a regular Public Works Department in 1891; (iv) relief during the famines of 1891-92, and 1896-97; (v) the conversion of the local currency (1893-94), vide APPENDIX VI; (vi) the introduction of the land revenue settlement (1894-95); (vii) the discovery of a coal mine at Palāna in 1896; (viii) the construction of the Ghaggar canals (1896-97); and (ix) a sound husbandry of the State's resources.

Within a year of the Maharaja's attaining full powers, the State was visited by one of the severest famines in which the Maharaja personally took the most active part in organising relief operations and

in making them a complete success. For the indefatigable energy and skill, with which he conducted them and for his personal activity he was awarded the *Kaisar-i-Hind* medal of the first class, in 1900. In June 1900, he was created an honorary Major in the Indian Army, and in August of the same year he went to China in command of his Imperial Service Regiment, receiving on his return the China medal and the K.C.I.E. In 1902 he visited England to attend the coronation of King Edward VII and was honoured with the appointment of honorary A.D.C. to the Prince of Wales. In 1903-04 his Camel Corps distinguished itself in Somaliland. In June 1904, he received the K.C.S.I., in January 1907 the G.C.I.E. and in December 1911 the G.C.S.I. He rendered active military service in the first World War in France and Egypt and was honoured with medals and other distinctions. In 1917 he took part as a representative of the Ruling Princes of India at the sessions of the Imperial War Cabinet and Conference held in England. In 1918-19, he took part in the Peace Conference where he was one of the signatories to the Treaty of Versailles.

At the invitation of the Viceroy the Maharaja represented the Ruling Princes of India at the Assembly of the League of Nations held at Geneva in September 1924. He was honoured as a Freeman of the Cities of London, Edinburgh, Manchester and Bristol. An Honorary degree of LL.D. was conferred on him by the University of Cambridge, Edinburgh and Banaras. He was also invited by the University of Oxford to receive its D.C.L. degree, but was unable to do so in person owing to his other pressing engagements. He was a Chancellor of the Banaras Hindu University. After the inauguration of the Chamber of Princes in February 1921, he was elected the first Chancellor of the Chamber and remained as such for some years. He was also a prominent member of the Indian Round Table Conferences held in London, in 1930 and 1931. In September, 1939, he placed his personal services and the entire resources of the State at the command of the British Indian Government in the Second World War. He went on active service to the Middle East Front in October 1941.

In the beginning of his reign, in 1905 the Maharaja had come in conflict with some of his turbulent Thakurs. Some were harbouring thieves, others resorting to pillage and plunder of their neighbours, some had sought to set at naught the authority of the State by exacting unlawful imposts on the peaceful population and encroaching on the

lands of the State. These elements wallowed in the belief that the relations between the Maharaja and the Political Agent were strained, and that it was an opportune time to conspire against him. They were led to assume that if sufficient strength could be mustered the Political Agent would unhesitatingly intervene, and that the intervention would be in their favour. It is said that rich merchants and leaders of some religious sects were also asked to join. The Maharaja's warning to the Jagirdars to abstain from disloyal activities had no effect. He thereafter instituted a summary¹ enquiry into the activities of some of them. They also drew up a list of 36 complaints, which were enquired into. Most of the small and inconsequential rebellious sirdars were pardoned but their leaders were tried for their seditious activities by a Tribunal consisting of Maharaj Bhairun Singh and two A grade sirdars etc. The tribunal sat for one month and twenty-three days. The report of the tribunal mentioned that the sirdars wanted "to create a serious disturbance by making other Sardars and subjects hostile to the State by whatever means possible," and "the Commission has no hesitation in saying that the charge of sedition is clearly proved against the Sardars."² The Maharaja decided to confiscate only half of the estate of the Thakur of Ajitpura and a village each from estates of Bidāsar and Gopalpura. The offending nobles, then, approached the Political Agent who turned deaf ears to them. The Agent to the Governor General was also satisfied with the action taken by the Maharaja. The Viceroy also upheld the Maharaja's decision.

Maharaja Ganga Singh's long rule of 56 years witnessed the emergence of Bikaner State from a small petty principality into one of the premier princely States of India. The present Bikaner Division owes its prosperity, entirely to his efforts. He started first by inaugurating reforms in the old system of administration. The office of the Dewan was abolished in 1902 and proper Secretariat system was created. This enabled the ruler to guide the administrative machinery personally, and thanks to his superabundance of energy, he was able to do it so well in spite of his pre-occupations in other fields of activities briefly mentioned above. He established the Bikaner Representative Assembly in 1913 consisting of 35 members. In September 1917 it was named as Legislative Assembly with a membership of 45 and was invested with the powers of legislation, deliberation and interpellation on the model

1. Panikkar, K.M., *His Highness the Maharaja of Bikaner*, 1937, p. 78-79.

2. *ibid.*, p. 84

of the Central Assembly in British India constituted under the Morley Minto Reforms, with special safeguards in the hands of the ruler. The laws passed by this assembly covered a wide field. He also established District Boards and made improvement in the Local Self-Government institutions. The Police Department was reorganised. In order to improve the revenue administration of the State he tried to settle the land revenue on a permanent basis, and a British officer was engaged for the purpose. Measures were taken to improve and increase the rabi cultivation in those parts of the State which were well suited for it. Many schools were opened and a modern hospital fully equipped and manned by renowned surgeons and physicians chosen with care, was set-up.

A benevolent and an enlightened ruler of the calibre of Maharaja Ganga Singh was naturally interested in irrigation as a means of prosperity in the arid tract on the north-west of the State. With this end in view he approached the British Government in India with the scheme of digging a canal to bring water from the river Sutlej. It was on the 4th September 1920, fifteen years after the scheme had been accepted in principle, that the momentous agreement was signed between the Punjab, Bahawalpur and Bikaner to give a practical shape to the project. The work of construction of loop-line, 157 miles in length was completed alongwith the establishment of schools, *mandis*, hospitals and police stations, by the autumn of 1927. On 26th October of the same year, Lord Irwin, the then Viceroy, came to open the canal which perpetuates the name of the Maharaja. The Gang Canal, which takes the place of pride amongst a number of ameliorative measures initiated by the Maharaja for promoting the well-being of his subjects, converted a very big area of the State from desert into the lush green and fertile fields. More than 500 new villages have come into existence since the opening of the Canal and the region vies with any other in India in agricultural prosperity.

Another important achievement of the Maharaja was the extension of railway lines in the State, thus providing a net work of modern means of communication. The total length of the railway tracks in 1898 was about 136 km. This had increased to 1413 Km. in 1943 when the Maharaja died. He also established a High Court of Judicature and introduced separation of the Judiciary from the executive at the top.

History

In his reign, Hindi was reintroduced as the State language which was to replace Urdu introduced as the official language by the Council of Regency during the minority of the Maharaja. The Government High School in Bikaner city was upgraded to a College and the post of Director of Education was created. The Maharaja established a Zenana Hospital and a number of dispensaries at various places. He built-up a sound financial infrastructure of the State exploiting to the full, all sources of income.

The Maharaja celebrated the Silver Jubilee (1912) and the Golden Jubilee (1937) of his reign. He was a devoted father, a fine sportsman, a master of the art of shooting—having bagged no less than 160 tigers. He had a special taste for architecture, which was reflected in the many beautiful buildings and fine roads and parks to be seen in and around Bikaner. It was his fidelity to old friends which impelled him to gather them round in Bikaner on every important occasion.

Besides the Viceroys who visited this State, many political officers of the Government of India, and other friends from European countries enjoyed his lavish and luxurious hospitality at Bikaner. On the occasion of the Versailles Peace Conference the Maharaja had invited M. Clemenceau to visit Bikaner. This famous statesman of France while visiting India on his return tour from the Far East in 1922, also came to Bikaner.

Ganga Singh died in 1943 at the age of 63 years.

Maharaja Sadul Singh

Ganga Singh was succeeded by his son Sadul Singh. Even at an age of sixteen as a prince, he was given opportunity of gaining insight into the administration of the State departments under different ministers by his sagacious father. In 1918, he had been to Europe with him when he went to attend the Versailles Peace Conference. Later in 1920 he was appointed as Chief Minister and President of the Council which office he occupied with distinction up to 1925, when he resigned. Thus he had acquired practical training in and experience of administration when he became the ruler.

Soon after his accession, he abolished the traditional and customary capital levies on *Neota* (on the occasion of a wedding in the Ruling Family) and *Takht Nashini ki Bhach* (on the occasion of accession of the ruler). At that time political developments were fast

taking shape in the country. The Cripps Mission had failed but new proposals were afoot to meet the demands for Independence. As a result of the proposals of Cabinet Mission, the British had agreed to withdraw from India, and an interim Government was to be set up under the leadership of the late Pt. Jawahar Lal Nehru. A constituent assembly was to be summoned to draw up a Constitution for free India. The States were also invited to send their representatives to this constituent assembly and K.M. Panikkar who was then the Prime Minister of Bikaner State, participated in its deliberations as its representative.

During this period, some steps were taken by the Maharaja to meet the demands of the *Prajamandal* for establishment of responsible Government in the State. The membership of the Legislative Assembly was raised to 51, of which 29 were to be elected members and the rest, nominated.

The Maharaja also declared that a Constitution Act would be promulgated providing for the establishment of full Responsible Government in the State. Two committees were appointed—one as the Constitution Committee and the other as Franchise and Constituencies Committee—which were directed to submit their reports before March 1, 1947. The scheme envisaged establishment of a responsible Government not later than November, 1947. A political conference was held in Raisinghnagar in June-July 1946. Some political disturbances, however, occurred in the State, and a few minor accidents were also reported from the capital in early July, 1946. However, a new Government, representing the people, the nobles and other interests, was constituted in 1947. This government, however, could not make such head way, and in the fluid situation that had developed, the Maharaja continued to rule till the end of March 1949 when the State merged (30.3.1949) into the United State of Greater Rājasthān.

Political Awakening in Bikaner

The seeds of political life in Bikaner had been sown by Maharaja Ganga Singh when he created a Representative Assembly as early as 1913. It was later re-named as Legislative Assembly with an initial membership of 45 members, both nominated and elected, and it was invested with the powers, like the Legislative Assembly at Delhi, of legislation, deliberation and interpellation with special safeguards reserved for the ruler. With the passage of time, and as a result of

more liberal political institutions having been established in British India, the limited functions of the Assembly could not meet the aspirations of the freedom loving people of the State. After the emergence of Mahatma Gandhi on the political scene of India, his *Satyagrah* movement and call for wearing *Khadi* unleashed a political springtide, which besides enveloping the British provinces also spread in the princely States. In 1921, some of the students at Bikaner wished to attend the function organised for the reception given in the honour of Prince of Wales wearing Gandhi caps. They were of course not allowed to do so. This was, however, a clear indication of the way the political wind was blowing in the State.

The political awakening found its first institutional expression in the establishment of a society known as *Sadvidya Pracharini Sabha* with the sole aim of explaining to people the reactionary and undemocratic policies followed by the State. This *Sadvidya* (right education) was imparted by presenting such stage plays and other recreational activities as would enlighten the audience about the evil effects of government policies on the people of the State. This was the first symbol of an eloquent but directly silent protest against the autocratic rule. The society later took upon its shoulders the responsibility of popularising *Swadeshi* movement in the State.

The then Bikaner State took great care in not allowing any of the political workers of either the British provinces, or of the neighbouring or other princely States, to enter its territory. One of them, however, succeeded in entering the State. He worked for 9 days among the Harijans, and enrolled some members of the Indian National Congress. He was, however, apprehended at the Railway Station and expelled from the State. Around 1927-28 a prominent *vakil* of Bikaner invited one of the prominent political leaders of Sikar and the Treasurer of the All India Congress Committee to preside over the annual function of the Ratangarh *Brahmacharyashram* but the authorities did not permit his entry in the State.

In the year 1930-31, publication of a pamphlet¹ depicting adversely the financial conditions of the newly started *Bikaner State Savings Bank* created a flutter in the official dove-cots of Bikaner. Another pamphlet showing in lurid lights the state of affairs in Bikaner

1. Bhowas, C., *Bikaner—the Land of the Marwaris*, p.88.

was circulated by State Peoples Conference in London among the members of the British Parliament. Maharaja Ganga Singh, who was in London to attend the Round Table Conference and who was very much upset at these publications, had to expedite his return to his State. After his arrival persons, suspected to be the authors of the pamphlets, were arrested.¹ In 1932, an Act, known as *Public Safety Act* was passed. It proscribed any agitation among labourers, prohibited the entry of any book or newspaper containing matter liable to create dis-affection against the ruler or his Government, and made it obligatory to apply for permission to hold any public meeting. The District Magistrate was empowered to declare any meeting illegal if it contravened any of the provisions of the said Act.

Bikaner Conspiracy Case (1932)

Several articles criticising the Bikaner Administration for taking such stringent measures to curb political agitation had appeared in periodicals like the *Riyasat* and *Princely India* published from Delhi. A meeting was held at Churu in January, 1932 where speeches vehemently criticising the State Administration for its repressive policies were delivered. Thereafter some persons were arrested to be prosecuted for sedition. When the trial began, a meeting² consisting of prominent persons from Rājasthān living in Bombay was held³ on 23rd September 1933. It was decided to form *Bikaner Political Case Committee* with the object of conducting a wide spread campaign in British India against the prosecution, ill treatment and denial of justice to political workers in Bikaner. Bikaner Day was organised on 17th December, 1933 at many places to protest against these prosecutions. Pandit Jai Narain Vyas, an eminent political worker of Rājasthān set up a defence committee for this purpose and great publicity was given to the proceedings of the case through press and platform. While in Bombay, the ruler called some influential persons to apprise them of the situation, but the trial continued and judgement was delivered in January, 1934, and the accused were sentenced to terms of imprisonment ranging from six months to three years.

1. Biswas, C., *op.cit.*, p. 88.

2. Panikkar, K.M., *op.cit.*, pp. 353-56.

3. File No. 60 of 1933, State Archives at Bikaner. It is in the form of a cutting from news papers. The news was published in the paper *The National Call* dated 27.8.1933. Also see *Swami Gopaldasji ka Vyakatlva avam Kratlva*, Nagar Shri Churu, p. 226.

In 1935, some enthusiastic workers of Bikaner residing in Calcutta set up there an organisation known as *Bikaner Rajya Praja Mandal*. In the following year *Praja Mandal* was established in Bikaner itself¹ but it could not pursue its activities due to the strict attitude adopted by the State authorities to curb them. In 1942, another band of workers made an attempt to start *Praja Parishad*. It was also smothered to lifelessness on the 7th day of its birth under the provisions of Public Safety Act.² One of the workers was exiled from the State and others were imprisoned. One *Akhil Bharatiya Charan Sabha* running a *Khadi Bhandar*, was closed by the orders of the State and its workers were expelled from the State.³

After Maharaja Sadul Singh's accession to the throne, he pursued a less repressive policy and some political workers were released from jail. The new Maharaja visualised the political trends in the country and attempted to introduce some reforms in the administrative system. Changes were also made in his personnels occupying the key-positions in the State Administration, though surprisingly enough, even collection for Kasturba memorial fund in 1944 was prohibited upon and the subscribers were warned.⁴

In the Jagir villages, the condition of the farmers was becoming intolerable. The jagirdars practised all kinds of tyrannies over them. The peasants tried to approach the Maharaja of Bikaner for redress of their grievances but in vain. They had, therefore, to approach the *Praja Parishad* to espouse their cause. It was for the first time, in the history of Bikaner that *kisans*, both men and women, paraded the streets of the city, flying tricoloured flags and shouting national slogans. Many persons were arrested on 6th June, 1945, including the President of *Praja Parishad* and many of its members. The news of the arrest of these people spread like wild fire throughout the Bikaner State, and as a consequence, the *kisans* of Dudhwākharā (Churu district) also joined the agitation. Repressive measures were also taken against the people of Raisinghnagar (Gangānagar district) where the police resorted to firing (1946) resulting in one death.⁵

1. Biswas, C., *op.cit.*, p. 88.

2. *ibid.*

3. *Bikaner Rajya men Rajnitic Vikas Evam Halchal*, Manbha Ram Vaid (1947).

4. Biswas, C., *op.cit.*, p. 89.

5. *ibid.*, p. 90.

In the second half of the year 1946, a number of organisations of political complexion such as *Praja Sevak Sangh*, *Muslim League*, *Jai Sabha* had come into existence. The year 1946 thus ushered in a new era in the political life of Bikaner, by the creation of a new political ferment. The Maharaja influenced by the political developments taking place in British India, issued a proclamation on 31st August, 1946, setting up a body for drafting a constitution for introducing a responsible government in the State. The constitution making body invited important individuals, institutions and organisations in the State, to give their suggestions for the purpose. The Maharaja showed his willingness to send a representative to take part in the Constituent Assembly of India. In the meantime, Pandit Jawahar Lal Nehru, had formed the Interim Government for the country and the British Government had declared their intention to leave India.

Another important development took place in 1947 when the Maharaja decided to set up a popular government consisting of the members of the *Praja Parishad* alongwith equal number of members from the nobility and other sections of the people. Thus a ministry was formed with four of its members belonging to the *Praja Parishad*. This ministry could not work successfully for a long period as it sought to combine both feudal and popular elements.

In the meantime, the political developments in the country were taking place rapidly. Sardar Patel's policy of intergrating the princely States to form a State of Rājasthān was beginning to take shape. The Maharaja accordingly agreed to merge his State into the United State of Greater Rājasthān, which was inaugurated on 30th March, 1949. The centuries old dynastic rule of the Rathors thus came to an end. The genealogical table of the rulers of Bikaner State is given in APPENDIX VII.

APPENDIX I

Treaty of Friendship and Alliance between the British Government in India and Maharaja Surat Singh of Bikaner, dated 9th March, 1818.

TREATY between the HONOURABLE the ENGLISH EAST INDIA COMPANY and MAHARAJAH SOORAT SING BAHADOOR THE RAJAH of BIKANER, concluded by Mr. CHARLES THEOPHILUS METCALFE on the part of the HONOURABLE COMPANY, in virtue of full powers granted by His EXCELLENCY the MOST NOBLE the MARQUIS of HASTINGS, K.G., GOVERNOR-GENERAL &C., &C., and by OJHA KASHEE NAUTT, on the part of RAJ RAJHEESUR MAHARAJAH SROOMUN SREE SOORUT SING BAHADOOR, according to full powers given by the RAJAH, -1818.

ARTICLE I

There shall be perpetual friendship, alliance, and unity of interests between the Honourable Company and Maharajah Soorut Sing and his heirs and successors, and the friends and enemies of one party shall be the friends and enemies of both parties.

ARTICLE 2

The British Government engages to protect the principality and territory of Bikaner.

ARTICLE 3

Maharajah Soorut Sing and his heirs and successors will act in subordinate co-operation with the British Government and acknowledge its supremacy, and will not have any connection with any other Chiefs or States.

ARTICLE 4

The Maharajah and his heirs and successors will not enter into negotiation with any Chief or State without the knowledge and sanction of the British Government; but the usual amicable correspondence with friends and relations shall continue.

ARTICLE 5

The Maharajah and his heirs and successors will not commit aggressions on any one; if by accident any dispute arise with any one the settlement of it shall be submitted to the arbitration and award of the British Government.

ARTICLE 6

Whereas certain persons of the principality of Bikaner have adopted the evil courses of highway robbers and banditti, and have plundered the property of many, to the great molestation of the peaceable subjects of both of the contracting parties, the Maharajah engages to cause to be restored the property plundered from inhabitants of the British territories upto this time, and for the future entirely to suppress the robbers and plunderers in his principality. If the Maharajah be not able to effect their suppression assistance shall be afforded on his application by the British Government, in which case the Maharajah will pay all the expenses of force employed; or, in the event of his not finding means to pay those expenses, he will in lieu cede parts of his territory to the British Government, which, after the payment of those expenses, shall be restored.

ARTICLE 7

The British Government, on the application of the Maharajah, will reduce to subjection the taukoors and other inhabitants of his principality who have revolted and thrown off his authority. In this case the Maharajah will pay all the expenses of the force employed; or, in the event of not having the means, will, instead, cede parts of his territory to the British Government, which shall be restored after the payment of those expenses.

ARTICLE 8

The Maharajah of Bikaner will furnish troops at the requisition of the British Government, according to his means.

ARTICLE 9

The Maharajah and his heirs and successors shall be absolute rulers of their country, and the British jurisdiction shall not be introduced into that principality.

ARTICLE 10

As it is the wish and intention of the British Government that the roads of Bikaner and Bhutneer be rendered passable and safe for the transit of trade to and from the countries of Cabul and Khorasaun, &c., the Maharajah engages effectually to accomplish that object within his own dominions, so as that merchants shall pass with protection and safety and meet with no impediment; and with respect to custom duties the established rates shall not be exceeded.

ARTICLE 11

This Treaty of eleven Articles having been concluded and signed and sealed by Mr. Charles Theophilus Metcalfe and Oujha Kashee Nautt, the ratifications by His Excellency the Most Noble the Governor-General and Raj Rajheesur Maharajah Sroomun Sree Soorat Sing Bahadoor, shall be exchanged within twenty days from the present date.

Done at Delhi, this 9th day of March, A.D. 1818.

C.T. METCALFE
OUJHA KASHEE NAUTT
HASTINGS.

This Treaty¹ was ratified by His Excellency the Governor-General, in Camp near Patrassa Ghaut on the Gogra, on the 21st of March, 1818.

J. ADAM
Secretary to the Governor-General

1. Aitchison, C.U., *A Collection of Treaties, Engagements and Sanads*, Vol. III (1932), pp. 288-90.

APPENDIX II

TRANSLATION¹ OF A SUNNOD granting certain villages to
MAHARAJAH SIRDAR SINGH BAHADUR of BIKANER,
dated 11th April 1861.

Whereas it appears from a report of the Governor-General's Agent in Rajpootana that during the rebellion Maharajah Sirdar Singh Bahadur of Bikaner, with a feeling of loyalty and devotion to the British Government came out in person, spent money, protected lives of certain Europeans, and rendered other good services to government; and whereas these circumstances being highly satisfactory to government, the said Maharajah obtained thanks and a Khillut of distinction; the government is now pleased to confer on him in perpetuity the villages specified in a separate schedule*, situated in the district of Sirsa, yielding an annual revenue of fourteen thousand two hundred and ninety-one Rupees, and which are hereby incorporated with his former territory, subject to the same conditions as are observed with respect to the latter; the grant will take effect from 1st May 1861.

*Names of villages with their annual jumma granted to the Maharajah of Bikaner in reward for his services

No.	Names of villages	Annual jumma, 1861-62	Remarks
		Rs.	
1.	Saboora	300	
2.	Manuck Tebee	177	
3.	Kara Khara	490	This village has progressive jumma rising to Rupees 590 in 1865-66.
4.	Goodea Khara	406	
5.	Kampoora	137	Has progressive jumma rising to Rupees 235 in 1865-66.
6.	Solawally	234	
7.	Muller Khara	451	
8.	Baseehur	500	
9.	Gilwalla	410	
10.	Saharun	350	
11.	Koolthunde	250	
12.	Soorawally	948	
13.	Chundoorwally	200	
14.	Peer Kamreea	740	

1. Aitchison, C.U., *A Collection of Treaties, Engagements and Sanads*, Vol. III, (1932), pp. 290-91.

No.	Names of villages	Annual jumma, 1861-62	Remarks
15.	Punneewally oorf jugrahee	207	
16.	Kunnanee	451	
17.	Mugrahee	534	
18.	Masanee	346	
19.	Tebee Barajeka	889	
20.	Rutta Khara	199	
Has progressive jumma—			
21.	Rathee Khara	16	Rising to Rupees 235 in 1865-66
22.	Kishenpoora	120	-do- 300 in 1870-71
23.	Salaingur	17	-do- 130 in -do-
24.	Gharoe	210	-do- 340 in 1865-66
25.	Silwalla Khurd	194	-do- 266 in -do-
26.	Bairwalla Kullan	280	
27.	Silwalla Kullan	241	-do- 366 in -do-
28.	Tulwara Kullan	757	
29.	Jalalabad	176	-do- 276 in -do-
30.	Moharwalla	482	-do- 554 in -do-
31.	Maseetawally	223	-do- 261 in -do-
32.	Ramsara	258	-do- 308 in -do-
33.	Dublee Khurd	394	-do- 454 in -do-
34.	Ramnugger	200	
35.	Dublee Kullan	730	-do- 780 in -do-
36.	Mirzawally	351	-do- 423 in -do-
37.	Chaoowally	310	-do- 360 in -do-
38.	Bhooranpoora	174	-do- 225 in -do-
39.	Khairawally	181	-do- 231 in -do-
40.	Shewdanpoora	473	
41.	Khundanea	285	
TOTAL RUPEES		14,291	

APPENDIX III

ADOPTION SUNNUD¹ granted to the Ruler of Bikaner—1862.

Her Majesty being desirous that the Governments of the several Princes and Chiefs of India who now govern their own territories should be perpetuated, and that the representation and dignity of their Houses should be continued; I hereby, in fulfilment of this desire, convey to you the assurance that, on failure of natural heirs, the adoption by yourself and future Rulers of your State of a successor according to Hindoo law and to the customs of your race will be recognised and confirmed.

Be assured that nothing shall disturb the engagement thus made to you, so long as your House is loyal to the Crown and faithful to the conditions of the Treaties, Grants or Engagements which record its obligations to the British Government.

CANNING,

Dated 11th March 1862

1. Aitchison, C.U., *A Collection of Treaties, Engagements and Sanads*, Vol. III (1932), pp. 35-36,

APPENDIX IV

EXTRADITION TREATY between the BRITISH GOVERNMENT and HIS HIGHNESS SIRDAR SING, MAHARAJAH OF BIKANER, his heirs and successors, executed on the one part by LIEUTENANT-COLONEL RICHARD HARTE KEATINGE, C.S.I. and V.C., GOVERNOR-GENERAL'S AGENT for the STATES of RAJPOOTANA, in virtue of the full powers vested in him by HIS EXCELLENCY THE RIGHT HON'BLE SIR JOHN LAIRD MAIR LAWRENCE BARONET, G.C.B., and G.C.S.I., VICEROY and GOVERNOR-GENERAL of INDIA, and on his own part by MAHARAJAH SIRDAR SING aforesaid,—1869.

ARTICLE 1.

That any person, whether a British or Foreign subject, committing a heinous offence in British territory, and seeking shelter within the limits of the Bikaner State, shall be apprehended and delivered up by the latter Government to the former on requisition in the usual manner.

ARTICLE 2.

That any person, being a subject of Bikaner, committing a heinous offence within the limits of the Bikaner State, and seeking asylum in British territory will be apprehended and delivered up by the latter Government to the former on requisition in the usual manner.

ARTICLE 3.

That any person, other than a Bikaner subject, committing a heinous offence within the limits of the Bikaner State, and seeking asylum in British territory, will be apprehended, and the case investigated by such Court as the British Government may direct. As a general rule, such cases will be tried by the Court of the Political Officer in whom the political supervision of the Bikaner State may at the time be vested.

ARTICLE 4.

That in no case shall either Government be bound to surrender any person accused of a heinous offence, except on requisition duly made by, or by the authority of, the Government within whose territories the offence shall be charged to have been committed and also upon such evidence of criminality as, according to the laws of the country in which the person accused shall be found, would justify his apprehension and sustain the charge if the offence had been there committed.

ARTICLE 5.

That the following offences be deemed as coming within the category of heinous offences :

1st—Murder	10th—Dacoitee
2nd—Attempt to murder	11th—Robbery
3rd—Culpable homicide under aggravating circumstances	12th—Burglary
4th—Thuggee	13th—Cattle-theft
5th—Poisoning	14th—Arson
6th—Rape	15th—Forgery
	16th—Counterfeiting coin or uttering base coin
7th—Causing grievous hurt	17th—Criminal breach of trust
8th—Child-stealing	18th—Criminal misappro- priation of property
9th—Selling females	19th—Abetting the above offences

ARTICLE 6

The expense of any apprehension, detention, or surrender, made in virtue of the foregoing stipulations, shall be borne and defrayed by the Government making the requisition.

ARTICLE 7

The above Treaty shall continue in force until either of the high contracting parties shall give notice to the other of its wish to terminate it.

ARTICLE 8

Nothing herein contained shall be deemed to affect any Treaty now existing between the high contracting parties, except so far as any Treaty may be repugnant thereto.

Done at Bikaner this third day of February in the year one thousand eight hundred and sixty-nine.

PERCY W. POWLETT,
Asstt. Agent, Govr.-Genl.

SIGNATURE AND SEAL OF THE
MAHARAJAH OF BIKANER

R. H. KEATINGE,
Govr.-Genl.'s Agent.
MAYO

This treaty¹ was ratified by His Excellency the Viceroy and Governor-General of India at Simla on the 15th June 1869.

W. S. SETON-KARR,
Secy. to the Govt. of India,
Foreign Dept.

1. Aitchison, C.U., *A Collection of Treaties, Engagements and Sanads* Vol. III (1932), pp. 291-93.

APPENDIX V

AGREEMENT supplementary to the TREATY of 1869 regarding
EXTRADITION—1887.

Whereas a Treaty relating to the extradition of offenders was concluded on the 15th June 1869 between the British Government and the Bikanir State: And whereas the procedure prescribed by the Treaty for the extradition of offenders from British India to the Bikanir State has been found by experience to be less simple and effective than the procedure prescribed by the law as to the extradition of offenders in force in British India: It is hereby agreed between the British Government and the Bikanir State that the provisions of the Treaty prescribing a procedure for the extradition of offenders shall no longer apply to cases of extradition from British India to the Bikanir State; but that the procedure prescribed by the law as to the extradition of offenders for the time being in force in British India shall be followed in every such case.

Done at Bikanir this twenty-ninth day of July in the year one thousand eight hundred and eighty-seven.

A. P. THORNTON, Captain,
Offg. Political Agent, Bikanir.

SIGNATURE AND SEAL OF MAHARAJA OF BIKANIR

DUFFERIN,
Viceroy and Governor-General
of India.

This Agreement¹ was approved and confirmed by His Excellency the Viceroy and Governor-General of India at Fort William on the twenty-eighth day of March A.D. one thousand eight hundred and eighty-eight.

H. M. DURAND
Secretary to the Govt. of India,
Foreign Dept.

1. Aitchison, C.U., *A Collection of Treaties, Engagements and Sanads*, Vol. III (1932), pp. 295-96.

APPENDIX VI

AGREEMENT under the NATIVE COINAGE ACT 1876, with the
BIKANIR DARBAR, 1893.

ARTICLES of AGREEMENT made this sixteenth day of FEBRUARY 1893 between the GOVERNMENT of INDIA on the one part and the BIKANIR DARBAR on the other part :—

Whereas under the Native Coinage Act, IX of 1876 the Governor-General in Council has power from time to time to declare by notification in the *Gazette of India* that a tender of payment of money if made in the coins, or the coins of any specified metal, made under the said Act for any Native State, shall be a legal tender in British India: And whereas by section 4 of the said Act it is declared that such power shall be exercisable only under certain conditions, amongst which is the condition that the Native State for which such coins are coined shall enter into agreements corresponding with the first three articles of these presents: And whereas by section 5 of the said Act any such State is authorised to send to any mint in British India metal to be made into coin under the same Act, and (subject as therein mentioned) the Mint Master is required to receive such metal and convert it into coin:

And whereas the Bikaner State is a Native State within the meaning of the said Act, and the Bikanir Darbar, pursuant to such authority, has sent or will send to the Mint of Bombay silver to be coined under the said Act into a maximum of Rupees ten lakhs or thereabouts, and has requested the Government of India to exercise the power hereinbefore recited in the case of the said coins, and the Government of India have consented to exercise such power by issuing the requisite notification in the *Gazette of India*, on the execution by the said Bikanir Darbar of this Agreement.

Now these presents witness, and it is hereby agreed between the parties hereto as follows (that is to say) :—

FIRSTLY—The Bikanir Darbar agrees to abstain during a term of thirty years, from the date of the notification aforesaid, from coining silver and copper in its own mint, and also undertakes that no coins resembling coins for the time being a legal tender in British India, shall, after the expiration of the said term, be struck under its authority, or with its permission at any place within or without its jurisdiction.

SECONDLY—The Bikanir Darbar also agrees that the law and rules for the time being in force respecting the cutting and breaking of coin of the Government of India reduced in weight by reasonable wearing or otherwise, or counterfeit, or called in by proclamation, shall apply to the coins made for the Bikanir State under this Act, and that it will defray the cost of cutting and breaking them.

THIRDLY—The Bikanir Darbar also agrees not to issue the said coins below their nominal value, and not to allow any discount or other advantage to any person in order to bring them into circulation.

FOURTHLY—The Bikanir Darbar agrees that if at any time the Government of India call in its coinage in silver and copper, the Darbar will, if so requested by the Government of India, call in at its own expense all coins made for it under this Agreement.

In witness whereof Rai Bahadur Sodhi Hukm Singh, Thakur Lal Singh, and Mahta Mangal Chand, Members of the Council of Regency, and C. S. Bayley, Indian Civil Service, Political Agent, Bikanir on behalf of the Government of India, have set their hands and seals the day and year first above written.

SODHI HUKM SINGH
LAL SINGH

LANSDOWNE

Viceroy and Govr.-Genl. of India.

MAHTA MANGAL CHAND
CHAS. S. BAYLEY,
Political Agent in Bikanir.

This agreement¹ was ratified by His Excellency the Viceroy and Governor-General of India at Fort William, on the third day of March 1893.

H. M. DURAND,
Secretary to Government of India,
Foreign Department.

1. Aitchison, C.U., *op.cit.*, pp. 298-99.

APPENDIX VII
Genealogy of the rulers of the Bikaner State

S. No	Name	Date of Birth	Date of accession	Age at accession	Date of Demise	Period of Reign	Age
1	2	3	4	5	6	7	8
1.	Rao Bika	Sawan Sud 15th s. 1495 (A.D. 1438)	Sambat 1522 (A.D. 1465)	27 0	Asoj Sud 3rd s. 1561 (A.D. 1504)	39 0	66 2
2.	Rao Naro	Katik Bad 4th s. 1525 (A.D. 1468)	Asoj Sud 15th s. 1561 (A.D. 1504)	36 0	Magh Sud 8th s. 1561 (A.D. 1505)	0 4	36 4
3.	Rao Lunkaran	Magh Sud 10th s. 1526 (A.D. 1470)	Phagun Bad 4th s. 1561 (A.D. 1505)	35 0	Sawan Rad 4th s. 1583 (A.D. 1526)	21 5	56 5
4.	Rao Jetsi	Katik Sud 8th s. 1546 (A.D. 1489)	Sawan Bad 30th s. 1583 (A.D. 1526)	36 9	Chait Rad 11th s. 1598 (A.D. 1542)	15 8	52 5
5.	Rao Kalyan Singh	Magh Sud 6th s. 1575 (A.D. 1519)	Chait Sud 8th s. 1599 (A.D. 1542)	23 2	Baisakh Bad 5th s. 1628 (A.D. 1571)	29 0	52 3
6.	Raja Rai Singh	Sawan Bad 12th s. 1598 (A.D. 1541)	Baisakh Sud 1st s. 1628 (A.D. 1571)	29 9	Magh Bad 30th s. 1668 (A.D. 1612)	40 9	70 6
7.	Raja Dalpat Singh	Phagun Bad 8th s. 1621 (A.D. 1565)	Magh Sud 12th s. 1668 (A.D. 1612)	46 11	Phagun Bad 11th s. 1670 (A.D. 1614)	1 10	49 0
8.	Raja Sur Singh	Poh Sud 12th s. 1651 (A.D. 1595)	Migsar s. 1670 (A.D. 1613)	18 11	Asoj Bad 30th s. 1688 (A.D. 1631)	17 10	36 9
9.	Raja Karan Singh	Sawan Sud 6th s. 1673 (A.D. 1616)	Katik Bad 13th s. 1688 (A.D. 1631)	15 3	Asadh Sud 4th s. 1726 (A.D. 1669)	37 8	52 11
10.	Maharaja Anoo Singh	Chait Sud. 6th s. 1695 (A.D. 1638)	Sawan Bad 1st s. 1726 (A.D. 1669)	31 3	Jeth Sud 9th s. 1755 (A.D. 1698)	28 10	60 2
11.	Maharaja Sarup Singh	Bhadwa Pad 1st s. 1746 (A.D. 1689)	Asadh Bad 6th s. 1755 (A.D. 1698)	8 10	Migsar Sud 15th s. 1757 (A.D. 1700)	2 6	11 4

1	2	3	4	5	6	7	8
12.	Maharaja Sujan Singh	Sawan Sud 3rd s. 1747 (A.D. 1690)	Poh Bad 12th s. 1757 (A.D. 1700)	10	5	Poh Sud 13th s. 1792 (A.D. 1736)	35 1 45 5
13.	Maharaja Zorawar Singh	Magh Bad 14th s. 1769 (A.D. 1713)	Magh Bad 9th s. 1792 (A.D. 1736)	23	0	Jeth Sud 6th s. 1802 (A.D. 1745)	9 4 32 4
14.	Maharaja Gaj Singh	Chait Sud 4th s. 1780 (A.D. 1723)	Asadh Bad 14th s. 1780 1802 (A.D. 1745)	22	3	Chait Sud 6th s. 1844 (A.D. 1787)	41 9 64 0
15.	Maharaja Raj Singh	Katik Bad 2nd s. 1801 (A.D. 1744)	Baisakh Bad 2nd s. 1844 (A.D. 1787)	42	6	Baisakh Sud 8th s. 1844 (A.D. 1787)	21 days 42 6
16.	Maharaja Pratap Singh	s. 1838 (A.D. 1781)	Jeth Bad 4th s. 1844 (A.D. 1787)	6	0	Asoj Bad 13th s. 1844 (A.D. 1787)	0 4 6 4
17.	Maharaja Surat Singh	Poh Sud 6th s. 1822 (A.D. 1766)	Asoj Sud 10th s. 1844 (A.D. 1787)	21	9	Chait Sud 9th s. 1885 (A.D. 1828)	41 6 62 3
18.	Maharaja Ratan Singh	Poh Bad 9th s. 1847 (A.D. 1791)	Baishkh Bad 5th s. 1885 (A.D. 1828)	37	4	Sawan Sud 11th s. 1908 (A.D. 1851)	23 4 60 7
19.	Maharaja Sardar Singh	Bhadwa Sud 14th s. (1875 A.D. 1818)	Bhadwa Bad 7th s. 1903 (A.D. 1851)	33	0	Baisakh Sud 8th s. 1929 (A.D. 1872)	20 9 53 8
20.	Maharaja Dungear Singh	Bhadwa Bad 14th s. 1911 (A.D. 1854)	Sawan Sud 7th s. 1929 (A.D. 1872)	17	11	Bhadwa Bad 30th s. 1944 (A.D. 1887)	15 1 33 0
21.	Maharaja Ganga Singh	Asoj Sud 19th s. 1937 (A.D. 13th Oct. 1880)	Bhadwa Sud 10th s. 6 1944 (31st Aug. 1887)	6	10	2nd February 1943	55-5-2 62 4
22.	Maharaja Sadul Singh	7th September 1902	2nd February 1943				

Source : From S.No. 1 to 20 the names and other particulars have been taken from *The House of Bikaner*, Bikaner, 1933, (an official Publication of the Bikaner State) p. 209. Some of the dates given above are at variance with those given by local and Persian chronicles.

CHAPTER III

PEOPLE

POPULATION

Total Population

The total population¹ of the district in 1961, according to the Census figures, was 4,44,515. It was distributed among the various administrative units as follows :

Unit	Total	Population	
		Males	Females
Bikaner district	4,44,515	2,32,699	2,11,816
Bikaner north Sub-division	3,05,748	1,60,217	1,45,531
Bikaner tahsil	2,51,781	1,31,888	1,19,893
Lunkaransar tahsil	53,967	28,329	25,638
Bikaner south Sub-division	1,38,767	72,482	66,285
Kolāyat tahsil	47,998	25,710	22,288
Naukha tahsil	90,769	46,772	43,997

Growth of Population

The density of population in 1961 was 16 persons per sq. km. as compared to 13 persons per sq. km. in 1951. The density of population for Rājasthān as a whole, was 59 persons per sq. km. in 1961, and 47 persons per sq. km. in 1951.

The following table gives decade variation² in population during the last sixty years.

Year	Decade variation	Percentage decade variation	
		Bikaner	Rajasthan
1901-11	+ 16,313	+ 8.57	+ 6.70
1911-21	— 8,118	— 3.93	— 6.29
1921-31	+ 36,230	+ 18.24	+ 14.14
1931-41	+ 80,536	+ 34.29	+ 18.01
1941-51	+ 27,673	+ 8.77	+ 15.20
1951-61	+ 1,01,424	+ 29.56	+ 26.20

1. *The Census of India*, 1961, Vol. XIV, Rājasthān, Part II-A. pp. 21-22.

2. *ibid.*, p. 95.

An analysis of this table will show that the population in the area has registered a steady growth since 1921. In 1901 the population of the district was a bare 1,90,457, comprising 99,407 males and 91,050 females. During the preceding decade i.e., 1891-1901 it had decreased by 29.7 per cent, as a consequence of the famines of 1891-92, 1896-97 and 1899-1900. They were responsible for more than usual emigration and excessive mortality resulting mainly from epidemics like cholera and malarial fever.¹ The loss was partially made good in 1901-1911 when the population rose to 206,770. The following decade 1911-1921 again witnessed a decline in the growth rate with the result that the population of the district at the time of 1921 Census stood at 1,98,652. This decline was due to the visitation of plague and influenza during that decade all over the country. Thereafter, the population rapidly increased to 234,882 in 1931, 315,418 in 1941; 3,43,091² in 1951 and 4,44,515 in 1961. The 1961 Census population figure of 444,515 represents an increase of 29.56 per cent over that of 1951. The corresponding increase in the population of the State of Rājasthān was 26.20.

Sex Ratio

In this district, as elsewhere in Rājasthān, males outnumber females. According to 1921 Census, the number of females per 1000 males was 885. This increased to 890 in 1931 and fell to 863 in 1941 but again rose to 925 in 1951. In 1961, the females sex ratio for Rājasthān as a whole, was 908 while that for this district was 910. In urban areas of the district this ratio was 916, while in the rural area, it was 906. The number of females (being 884 to 1000 males) is lower than that of males in Bikaner city, but it is the other way round in other towns of the district; the ratio being 1117, 1002, 1046, 1057 and 1006 females to 1000 males, in Gangashahr, Bhināsar, Napāsar, Deshnoke and Naukha Mandi respectively.³

Age

As per 1951 Census report, infants aged upto four years accounted for 13 per cent, those aged 5 to 14, 26.9 per cent and persons aged 15 to 34 accounted for 32 per cent; those aged 35 to 54,

1. Erskine, K.D., *Rājputāna Gazetteer, The Western Rājputāna States Residency*, Bikaner, p. 331.

2. Adjusted figures to the jurisdiction of 1961.

3. *Census of India*, Paper No. 1 of 1962, pp. 233-235.

formed 18.5 per cent of the population and those aged 55 and over formed 9.6 per cent.

Age-wise distribution of the population according to 1961 Census, is as follows :

Age-group	Percentage
0-4	16.7
5-14	27.8
15-24	17.7
25-34	14.6
35-59	17.6
60 and above	5.6

Urban and Rural population

Till the year 1931 only Bikaner had been classified as a town. The number rose to three and seven in 1941 and 1951 respectively. In the 1961 Census the number fell to six due to the re-definition of a town¹ by the code of Census Procedure, and accordingly Lunkaransar was left out of the category. The particulars of other towns are as follows :

Name of Town	Area		Population Per sq.mile	Population 1961		
	Sq. miles	Sq. km.		Males	Females	Total
1	2	3	4	5	6	7
1. Bikaner	14.71	38.10	10,240	79,945	70,689	1,50,634
2. Gangashahr	4.58	11.86	2,335	5,052	5,644	10,696
3. Bhināsar	3.78	9.79	1,440	2,718	2,724	5,442
4. Napāsar	29.55	76.53	225	3,243	3,391	6,634
5. Deshnoke	33.61	87.05	205	3,344	3,536	6,880
6. Naukha Mandi	4.09	10.59	1,892	3,858	3,882	7,740

1. In 1961 a town included :

- (1) All areas which were administered by municipalities in 1951 and where municipal administration continued to subsist. However, where municipal administration did not exist, the following three factors were required to be satisfied before any such areas were included in urban areas :
- (a) Minimum population was 5000, (b) 3/4 of male adult population was engaged in non-agricultural occupations, and (c) density of population was approximately 1000 per sq. mile.

The population in towns in Bikaner district in 1901 was 53,075. It rose to 55,826 in 1911; 69,410 in 1921 and 85,927 in 1931. The total number of people living in towns increased to 136,801; 148,988 and 1,88,026 in 1941, 1951 and 1961 respectively.

The rural population of the district, according to 1961 Census, is 256,489 (134,539 males and 121,950 females), accounting for 5.8 per cent of the total population. The distribution of rural population according to administrative units is as follows :

Tahsil	Urban			Rural		
	Total	Males	Females	Total	Males	Females
Bikaner	1,80,286	94,302	85,984	71,495	37,586	33,909
Lunkaransar	—	—	—	53,967	28,329	25,638
Kolāyat	—	—	—	47,998	25,710	22,288
Naukha	7,740	3,858	3,882	83,029	42,914	40,115
Total	1,88,026	98,160	89,866	2,56,489	1,34,439	1,21,950

In 1961, the urban population formed 42 per cent of the total, but if Bikaner city is excluded, it is reduced to 8 per cent only. The other towns are only over grown villages as the economy of the district is overwhelmingly agricultural and pastoral. Scarcity of water and lack of any large scale industrial and trading centres, which only tempt large groups of people to them, are severe handicaps in the way of the growth of large towns in the district. The rural population is scattered over the desert and arid zone, clustering round wherever water is available for agriculture on a small scale, and for meeting the needs of human beings and domestic animals.

Emigration and Immigration

According to the 1951 Census, the total population of the district was 330,329 persons (171,279 males and 159,050 females). 301,874 persons (158,163 males and 143,711 females) that is 91.4 per cent, were born in the district itself while 6.2 per cent or 20,712 persons (8,994 males and 11,718 females) were born in other districts of Rājasthān, and only 0.9 per cent, that is 2,683 persons (1,463 males and 1,220 females) were born outside Rājasthān but within India. Those born in other countries of Asia numbered 5,060 (2,659 males and 2,401 females) and formed 1.5 per cent of the total population.

According to 1961 Census, those born in the district itself were 392,240 persons (209,845 males and 182,395 females) or 88.4 per cent of the total population. Those born in other districts of Rājasthān numbered 38,031 persons (14,858 males and 23,173 females) and accounted for 8.6 per cent. 9,034 persons (4,980 males and 4,054 females) or two per cent, were born in other States in India and those born in Asiatic countries beyond India formed one per cent and numbered 4,679 persons (2,768 males and 1,911 females). Only three (2 males and 1 female) persons were born in Africa and two persons (2 males) were born in America. 526 persons (244 males and 282 females) were declared unclassified. A comparison of these figures in 1951 and 1961 Census reports indicates a definite trend towards greater mobility of population.

The problem of emigration still remains largely of a semi-permanent variety, and consists of those traders and their dependents who are indiscriminately known as *Marwaris* and play an important role in commerce, banking and industry in India.

Displaced Persons

According to the Census of 1951, the number of displaced persons in this district was 5,012 (2,634 males and 2,378 females). Only two persons had immigrated from East Pākistān (one in 1947 and the other in 1949), and the remaining have come from West Pākistān, (3,649 in 1947; 1,247 in 1948 and 85 in 1949). Majority of them, that is 2,432 or 48.5 per cent, were traders; of the rest, 1,707 or 34.1 per cent earned their livelihood by other services and miscellaneous sources, 597 or 12 per cent were industrialists and 194 or 3.9 per cent were engaged in transport, 18 or 0.3 per cent were cultivators of owned land, 28 or 0.5 per cent were cultivators of un-owned land, 32 or 0.6 per cent were non-cultivating owners of land and 4 or 0.1 per cent were cultivating labourers¹.

The displaced persons were absorbed on land, trade, industry, business and a number of other occupations. In order to facilitate their resettlement, grants of land, subsidy and loans were made to them.

1. *Census, 1951, Rājasthān and Ajmer District Census Handbook*, Bikaner, Part I, General Description and Census Table, p. 3.

The following table shows occupational division of displaced persons in 1951.¹

Categories	Urban		Rural		Total	
	Male	Female	Male	Female	Male	Female
1. Cultivators of land wholly or mainly owned and their dependents	4	8	6	—	10	8
2. Cultivators of land wholly or mainly un-owned and their dependents	14	13	—	1	14	14
3. Cultivating labourers and their dependents	4	—	—	—	4	—
4. Non-cultivating owners of land; agricultural rent receivers and dependents	—	32	—	—	—	32
5. Production other than cultivation	284	282	17	14	301	296
6. Commerce	1,253	1,040	71	68	1,324	1,108
7. Transport	101	93	—	—	101	93
8. Other services and miscellaneous sources	871	813	9	14	880	827

LANGUAGE

According to the 1961 Census, the principal language spoken in the district is Marwari, a dialect of Rajasthani, which according to Dr. Grierson's classification belongs to the Indo-European family, Indo-Aryan Branch, Central Group. It was spoken by 372,833 persons (190,424 males and 1,82,409 females), excluding 3,467 persons who spoke other dialects of Rajasthani, forming 84 per cent of the total population at the time of 1961 Census. Hindi, including its variants Brij Bhasha and Khariboli, is spoken by 36,841 persons, Urdu by 12,922 and Punjabi by 6,402 persons. The number of persons speaking other Indian languages in the district is : Bengali 1,317, Gujarati 361, Marathi 513, Tamil 165, Nepali 163, Deshwari 93, Bihari 76, Arabic 69, Kankeri 26, Kashmiri 18, Multani 10, Sindhi 6,535, English 46,

1. *Census, 1951, Rājasthān and Ajmer District Census Handbook, Bikaner part 1, General Description and Census Tables, p. 80.*

Assamese 21 and Sanskrit 1. The other dialects of Rājasthān spoken in the district are Rajasthani (3,467); Rathi (2,156); Thali (475); Sansi (two) and Shekhawati (two).

Bilingualism

Bilingualism is fairly common among the people of the district. Out of the total of 444,515 persons, 16,660 were returned as speaking more than one language—English 10,353; Hindi 3,837; Urdu 1,037; Bengali 386; Punjabi 288; Sanskrit 188; Sindhi 175; Arabic 173; Gujarati 121; Assamese 55; Nepali 18; Marathi 17; Persian 8; Tamil, Telgu, Tibetan and German one each.

RELIGIOUS AND SOCIAL GROUPS

The bulk of the population consists of Hindus. Their total number according to the 1961 Census, was 376,265 (197,188 males and 179,077 females) which formed 84.7 per cent of the total. Muslims numbered 50,264 (27,040 males and 23,224 females) forming 11.3 per cent, Jains numbered 16,772 (7,750 males and 9,022 females) forming 3.7 per cent and the rest formed 0.3 per cent. These included 996 Sikhs (585 males and 411 females), 211 Christians (133 males and 78 females) and 7 (3 males and 4 females) those whose religion was not stated.

Hindus

The principal sects of Hindus in the district are (i) Vaishnava (ii) Shaiva and (iii) Shakta. They are worshippers of Vishnu, Shiva and Shakti respectively. Followers of Vishnu are said to predominate.

Caste system among the Hindus of the district is the same as elsewhere in the State, and is showing the same signs of slackening of its rigidity, specially in the urban areas. Educational advancement, social awakening and continuous efforts to ameliorate the economic and social conditions of the groups at the lower rungs of the society, have helped to break the rigid-caste barriers. Important castes among Hindus living in the district are Brahmans, Mahajans (Baniyas), Jats, Rajputs, Nayaks or Thoris, Meghwals, Bishnois and Darogas.

BRAHMANS—Generally a hard-working class, Brahmans are mostly traders and agriculturists, though some still perform priestly duties, and a few have adopted various other professions. Their different sects have not been recorded at any Census. Amongst the Brahmans, Pushkarnas are believed to preponderate in the district.

Other Brahmans found in the district are Pareek, Gaur, Gujar Gaur, Dahima or Dadhich, Saraswat, Sikhwal, Khandelwal and Paliwal. According to Muhnot Nensi,¹ the celebrated historian of Mārwar, Pushkarnas originated from Sindh, where from they migrated to Jaisalmer and in course of time, moved to Pokaran and other villages in Mārwar and the former State of Bikaner. They are strictly endogamous and are grouped into a number of exogamous sub-divisions, some of which are as under :—

- | | | |
|------------|--------------|-------------|
| 1. Purohit | 6. Derasuri | 11. Churina |
| 2. Vyas | 7. Chhanjuni | 12. Kalla |
| 3. Kenlia | 8. Gundhari | 13. Joshi |
| 4. Bissa | 9. Busu | 14. Bhora |
| 5. Acharya | 10. Ojha | |

The Paliwals are the remnants of the priests of the Pali tribe, who, in their pastoral and commercial pursuits, gave up their spiritual calling. They take their name from the town of Pali which they held in grant from the Parihar Chiefs of Mandor, before the establishment of Rathor power in Mārwar. It is said that when Sheoji, (Circa 1243 A.D.) the founder of Rathor power, imposed a general war contribution on the inhabitants of Pali, the Paliwals refused to pay pleading that they were Brahmans. This exasperated the Raja who threw the leaders into prison and issued a fiat punishing every Paliwal. Accordingly they all took refuge in Jaisalmer, and later, shifted to and settled in the former Bikaner State. At present only scattered families are found in villages and majority of them reside in urban areas. They still do not observe the festival of Rakhi which falls on the full moon of the month of *Sawan* because their ancestors are said to have been slaughtered in large number by Muhammad Ghori on that day. They worship the bride of a horse on the festival of Dashera to commemorate the memory of their warrior ancestors who traded on horse back far and wide and would not hesitate to unsheathe their swords in defence of their merchandise.

MAHAJANS—Mahajans or Bantias are generally known as Marwaris in other parts of the country where they are well established in trade and business. They form the wealthy section of the population. With regard to origin of this class, Tod writes: "The Bantias

1. *Census of India, 1961, Vol. XIV, Part VI-B, Village Survey Monographs, Mudh, p. 14.*

appear to trace their origin to Rājputāna and it seems not unlikely that their ancestors were the trading community among the inhabitants of Rājputāna." Amongst the Bania caste, the three most important divisions are the Oswals, Agarwals and Maheshwaris. The Agarwals are said to hail from the Hisār district of Haryāna. The Oswals trace their origin to Jodhpur or Western Mārwar. The Maheshwaris claim to be descendants of the Rajputs who took to commerce and sank to the level of other Bantias. The Maheshwaris came with Bika the founder of Bikaner. The Agarwals and the Saraogis immigrated to the Bikaner State during the early period of Mohammedan invasions to save themselves from the rigours of insecurity of life and property in the Punjab and the Gangetic plains.

The Oswals are said to be the descendants of Rajputs of different clans who were converted to Jainism in the second century A.D. They take their name from the town of Osi or Osian, the ruins of which are to be found thirty miles north of Jodhpur city. Their chief sects in the district are Kothari, Nahta, Baid, Chopra, Daga, Kochar, Bengani and Sipani.

The Maheshwaris are all Hindus, some of the Kotharis and Dagas are also Maheshwaris. Like the Oswals, they also trace their origin from the Rajputs, chiefly Chauhans, Parihars and Solankis, and comprise seventy-two exogamous sub-divisions. The name is derived from Mahadeo or Mahesh whom they worship. They are of abstemious habits in food and drink; refrain from the use of liquor and meat, and do not use onions, garlic or carrots. By occupation they are traders, contractors and bankers, some of them having trade connections in the remotest parts of India.

There are also a few Saraogi families in district. They are Digambar Jains and consist of 84 sections. The word *Saraogi* is said to mean 'strict abhorrence of liquor', but according to others, is a corrupt of *Shravak*, a lay worshipper of Buddha or Jain. They are strict vegetarians. They forbid the use of ivory bracelets by their women, bathe before breakfast, take their evening meal before sunset and burn no fuel without washing it.

The Agarwals trace their origin to Raja Agra Sen of Agroha in the Punjab. They are divided into 17½ clans. The story runs that the Raja being keen to marry his 17 sons to 18 snake-daughters of *Balak*,

had another son formed out of the body of the eldest and thus brought about their marriage; hence the number. The half section can eat together but not inter-marry with others, while the other half section known as the Narnaul Singhis, forms the *Mutsaddi* or the official class. The other clans are engaged in trade and are very enterprising, being found in almost all the cantonments and distant places, running their small shops, or managing big establishments under the ubiquitous name of Marwaris.

JATS—The Jats account for one-fourth to one-fifth of the entire population of the district; but preponderate numerically in the eastern tahsils. Their more important clans are Godara, Puniya, Beniwal, Sohu, Kaswan and Bagri; of these Godara and Saran are numerous in the district. The head of the Godaras still enjoys the privilege of putting the *tilak* or auspicious mark on the forehead of the new Maharaja of Bikaner. Prior to the advent of the Rathors, the Jats held the greater part of this territory under their sway, but most of them are now agriculturists and are known to be good cultivators. They have also taken to sheep breeding work. They possess strong and hardy physiques and are good natured by temperament. They are Vaishnavas, and call in Brahmans to officiate at their ceremonies; socially they are in the fore-front of the castes where widow marriage prevails and is practised without demur.

RAJPUTS—The Rajputs are the traditional fighting and land owning caste. Formerly they were divided into two economic classes, namely, (i) the aristocracy consisting of *Jagirdars*, and (ii) the tillers of the soil. The abolition of jagirs has affected them adversely; many of them have not yet attuned themselves to adoption of new occupations in a competitive social set-up.

The important Rajput clans living in the district are Rathor and the Bhati. The sects of the Rathor clan are the Bikawats, the Bidawats and the Kandholots, named after Rao Bika, the founder of the erstwhile State of Bikaner, and his brother Bida and his uncle, Kandhal respectively. Their further sub-divisions are Ratansinghot, Sarangot Kishan Singhot, Kesho Dasot and Manohar Dasot.

Tanwar Rajputs are also in sizable number. Rawane Rajput (also known as Darogas, Golas and Chelas) are considered lower in status by the Rajputs. They are also found in good number in the district. They have been described later.

NAYAKS OR THORIS—The word *Nayak* in Sanskrit means a Commander. How it came to be associated with the name of this community is still unknown. The Nayaks claim their identity with Surya Vanshi Kshatriyas and their descent from king Ajay Pal in particular. The claim has been acceded to by scholars like Pandit Jwala Prasad Mishra and Pandit Chhote Lal Sharma to the extent that their ancestors occupied posts of responsibility in the service of the Rajput princes, but due to frequent incursions of invaders they took shelter in remote places where they mixed up with primitive communities, imbibed their habits and customs and became their leaders or *Nayaks*. This theory, however, is not borne out by historical evidence.

The word Thoris¹ another name for Nayaks, is used in a derogatory sense, amounting almost to an abuse by the people of higher castes. They are treated as untouchables and are not allowed to build their huts adjacent to those of the high caste people. Their habitations are, therefore, located usually at an appreciable distance from the main *abadi*.

Till recently, the Nayaks have been considered good as mounted attendants or grooms or messengers. Their women folk serve as midwives.

MEGHWALS—The Meghwals claim their descent from legendary Brahman saint Megh. The story goes that there were four brothers who decided that the youngest of them should remove the dead body of a cow that had died in their yard. Accordingly, he dragged the carcass away to the jungle but on his return he was prevented from rejoining them and was forced to work as a Chamar. Another story goes that a Raja had two daughters—Chamu and Bhamu, each of whom had a son. One day an elephant died in the courtyard of the palace. Chamu's son who possessed Herculean strength, carried away the carcass and buried it. Thereupon, he was declared an outcaste and forced to take up the profession of a Chamar. These legends, however, fail to explain the origin of Meghwals except that persons of higher castes were degraded to the groups that worked as skimmers of dead animals.

The Meghwals are split into a number of exogamous *gotras*, such as : Jatra, Chandra, Bora, Sullaria, Novanpuria, Sungaria, Kansotia,

1. *Census of India, 1961, Vol. XIV, Part VI-B, Village Survey Monographs*, Mudh, p. 11.

Dameria, Goyal, Pawar, Khatania, Gander Balaicha, Lotna, Bhati, Jalan, Tadia Kanteria, Barupal, Chabaria and a host of others totalling more than a hundred. They worship Ramdeoiji and Gogaji and their family Goddess Khetla Mata.

A Meghwal youth is permitted by custom to have more than one wife but marrying of two real sisters by the same person is taboo. Remarriage of widows is prevalent but a widower cannot marry the sister of the deceased wife. At the time of betrothal, coconuts, jaggery, opium etc. are exchanged by both sides. A Garura Brahmin is engaged to officiate at the marriage ceremony. A feast called *Bhaiyaji ka Bhojan* is thrown during the seventh month of the first pregnancy of a girl, and a month after the delivery of the child, a ceremony known as *Surya puja* is held in which the Sun-god is worshipped. The Meghwal bury their dead.

BISHNOIS—Bishnois¹ derive their name from Vishnu as they lay great emphasis on its worship. They embraced 29 articles of their faith at the instance of a Panwar Rajput ascetic of village Pipasar (Nāgaur district), named Jhambhoji towards the end of the 15th century. Originally, the Bishnoi sect adopting a cosmopolitan spirit threw its gates open to persons belonging to any caste or creed. In course of time, however, the rigidity of caste system amongst other communities influenced the Bishnois, and they also formed themselves into a distinct sect, and now the bondage of caste is as firm among Bishnois as in any other community. They are distinguished from the rest of the Hindus as they bury and do not burn their dead bodies. Mostly, Jats, Brahmans, Kshatriyas and Vaishyas joined the Bishnoi sect. They marry among their own community but are exogamous so far as their own *Gotra* is concerned. Some of the *Gotras* which are found in the district and are akin to those of the Jats are : Kaswan, Godara, Punia, Sahu and Bhadi. Their chief occupation is agriculture and they are good at that. They are noted for their strength, hardhood and longevity. A Bishnoi can easily be recognised by his typical features. They are strict vegetarians and will not assist or favour even hunting of wild animals. Bishnois have their own priests, called *Thapans*, who officiate at their ceremonial functions. There are ten centres in the country which are considered sacred by them. Mukam, a village in Bikaner district, is one of these sacred places. Jambhoji was buried here and

1. Dr. Hira Lal Maheshwari, *Jhambhoji, Vishnoi Sampradaya Aur Sahitya*. Vol. 1, Calcutta, 1970, p. 437.

his *Samadhi* was erected at this place. The Bishnois of the district visit the shrine in large numbers twice a year to pay their homage to the saint.

DAROGAS—The origin of the Darogas can be traced to the numerous young maids who came as a part of the dowry with the brides in the Rajput homes and stayed with them under the same roof. As a result, children born of the extra-marital relations of these maids with the male members of the family were called Chakars, Hazuris, Chelas, Golas and Darogas, and were owned by the ruler, *thakurs*, or other Rajput nobles concerned. They as a class had no hereditary rights to property or other ownership. For the services rendered by them they were allowed food and clothes. Arrangement of marriages among them was the prerogative of their master. Their wives and daughters were given away by their respective masters as a part of dowry with their own daughters. If, at any time, they stayed away or took shelter elsewhere, they were forced to come back.

The Darogas in erstwhile Bikaner State, numbered 13,629 or 1.5 per cent of the total population of the State according to 1931 Census. They sometimes claim to be Ravane Rajputs. No steps for their emancipation or defining their status in society, was ever taken till the advent of Independence. The political consciousness following it and the abolition of the Jaghirdari system have largely contributed to the emancipation of this class, whom their masters could not maintain after their jagirs had been resumed.

ALAKHGIRS—The peculiar religious sect found in the district is that of the Alakhgirs which, though neither numerous nor important, is interesting because of its being founded by a member of the Chamar community known by the name of Lalgir with a number of high caste Hindus among its followers. Born in the village of Sulkhania, he was taken away while he was five years old by a *Naga*¹ who made him his disciple. Fifteen years later he returned with his *Guru* who discovering that Lalgir was the son of a Chamar, forsook him and himself went under a course of purification. In 1830, Lalgir came to Bikaner where he lived in a hut near the western gate of the fort for twelve years, and, when Maharaja Ratan Singh proceeded on pilgrimage of the Ganges, he accompanied him. On his return from the pilgrimage after constructing a well in his native village he came back

1. This was a sect of Hindu monks who adopted fighting as their profession.

to Bikaner where, although he made no secret of his being a Chamar, he created a following, chief of whom was one Lachhi Ram, the chief steward of one of the powerful *maharanis*. Lalgir denounced idolatry and preached to his disciples to call God only as *Alakh* (incomprehensible). Their worship consisted of only enchanting the word *Alakh*. Charity was encouraged, the taking of animal life and meat as food were forbidden. Asceticism were recommended to subdue passion and the only reward held out in life was the attainment of purity, undisturbed meditation and serenity. He believed that there was no further state of existence as all perished with the body and there was nothing beyond it. Peace in life and a good name afterwards were the sole but adequate inducement to the practice of virtue.

Lachhi Ram, prompted by his *guru* started constructing the splendid 'Alakh Sagar' at Bikaner, which was completed in *Samvat* 1909. One day while Maharaja Ratan Singh was going to Lakshmi Narain temple, Lalgir contemptuously enquired what he would get there. This enraged the Maharaja who expelled him and threw his book in manuscript into water. The book contained abusive and derisive references to Hinduism.

Lalgir went to Jaipur, and directed his followers to don the ascetic robes (the *Bhagwan libas* or clothes of a reddish colour, worn by the *Dadupanthis*) and become *Jogis*. The compliance of this mandate rent the air everywhere with the chanting of *Alakh ! Alakh !* Maharaja Sardar Singh got irritated and in order to put an end to the creed, directed the expulsion of all *Alakhgirs* from the State. The weaker spirits abandoned the faith, but Lachhi Ram remained steadfast and was accordingly expelled, and his religious books were destroyed. Eventually, when Man Mal, son of Lachhi Ram, became Minister (about 1866-67), Lalgir was reported to have been permitted to return and resume his teachings. The *Alakhgirs* are mainly ascetics, though a few of them are family men. They do not admit *Musalman*s to their faith and consider themselves to be a Jain sect, respecting, though not worshipping, the Jain *munis*.

Mohammedans

Muslims are divided into Sunnis and Shias. Of these, the former are found in large number in the district. The principle divisions of the Muslims are Sheikh, Saiyad, Mughal and Pathan. The caste system has influenced the Muslims also who are divided into several functional and other castes. Some of them are as follows :

1. Jaunjogbu, 2. Teli, 3. Kasai, 4. Rangad, 5. Sheikh, 6. Mirasi, 7. Bhisti, 8. Chhippa, 9. Dholi, 10. Fakir, 11. Mali, 12. Rangrez, 13. Dhobi, 14. Jat, 15. Khalal, 16. Khoja, 17. Kumbhar, 18. Kunjra, 19. Lohar, 20. Mulla, 21. Nai, 22. Pajabgir (worker at kilns, bricks etc.) 23. Chobdar and 24. Gujar. Pastoral tribes amongst Mohammedans consist chiefly of the Johyas, Bhattis and the Rathes.

Christians

The small Christian community consists of 211 persons (133 males and 78 females) according to the 1961 Census. Most of them are either Methodists, Roman Catholics or Presbyterians. The area is included in the Anglican Sea of the Bishop of Nagpur and the Roman Catholic Prefecture of Rājputāna. The native Christians have come from outside to earn their living mostly on the railways.

Sikhs

Not in large numbers in the district, Sikhs regard *Granth Sahib* as their *Guru* and strictly adhere to the five Symbols—*Kara* (iron bangle), *Kacchha* (underwear), *Kangha* (comb), *Katar* (daggar) and *Kesh* (hair) of the head and beard. Most of them are Jats.

Jains

Bikaner was popularly known as the land of Jains. Numerically insignificant, they hold important positions in the socio-economic life of the district by virtue of their pre-eminence in trade and commerce. The Oswals and Saraogis are the important groups of the community who are outwardly Hindus in their behaviour, but distinguish their creed by avowal of *Ahimsa* as its sheet anchor, the worship of Tirthankaras, and the absence of a priestly class. They are divided into the two sects of Svetambar and Digamber. Svetambaras are further divided into groups of Bais Sampradays, Tera Panthi and Mandir Margi.

Religious Beliefs and Practices

Orthodoxy grips the thought of most people in the district and their minds are still sunk in superstition. A simple belief in destiny, nature or God sustains their faith. All phenomena for which their limited knowledge fails to find an explanation, or which is baneful, is ascribed to providence. This attitude, being common to most religions, is accepted by persons professing different faiths. The theory of *Karma*

the law of causation i.e. Reward and Retribution follow action in this life or the life hereafter, has a great hold on their minds. Along with these simple tenets, polytheistic anthropo-morphism still prevails and people have great faith in a number of gods and goddesses, notably Bhaeroji, Hanumanji, Shitla (Goddess of small pox), Pabuji, Ramdeoji, Gogaji, Hing Laj Mata Mawarian, Karniji, Babbhuta Sidh and Kesaria Kanwal etc. Some of them were humans consecrated as gods immortal and possessing divine powers. The worship of the sacred herb *Tulsi* and trees like *Peepal* and *Khejra* are also resorted to in many households. The wrath and retribution of the gods is feared as much as their boons are solicited. Animal sacrifices are also offered at certain shrines of the Gods to propitiate them for warding off the evil influences. Priests and priestesses (Bhopa & Bhopi) are attached at the shrines of Bhairo and Mawarian for this purpose. In some rural areas, simple superstitious faith still prevails in the capacity of professional charmers to subdue an evil spirit by captivating it in an earthen pot which is carried away to be nailed at some secluded place—usually a burial ground. Muslim sorcerers seek to ward off the effects of evil eye by amulets (*Taviz*) which they profess to have endowed with magic powers. No doubt these irrational beliefs are on the decline, but mostly in rural areas many people have still faith in the potency of charms, amulets and secret formula (*Jantra*, *Mantra* and *Tantra*). Sometimes it is believed to strengthen their courage, determination and self-confidence.

People also believe in the efficacy of omens to forestall the coming events. Thus a cat crossing the way, a person with flowers or head load of fire wood confronting another set on a journey, sneezing or the sight of a widow before stepping out of the house, are considered ill foreboding, while coming across a sweeperess a maiden, or a married woman while undertaking a journey, is considered auspicious. If a lizard falls on the left side of a man or the right side of a woman, it is considered ominous, and if it does otherwise it is a bad sign. Quivering of the left side of the body of a woman is taken to be a bad omen. It may, however, be mentioned that these omens are interpreted alike by all superstitious people in the State.

There are, however, certain omens related to a particular region, especially with regard to rains and ploughing; for example, there is a saying that if on the first day after the end of the month of *Jeth*, there is a rumbling of clouds in the sky, the next two months *Asadh* and

Shrawan would go dry, and rain cannot be expected before the month of *Bhadon*. Further, it is considered a good omen for the coming rains if *Akha Teej* is a windy day, but if *Tikri*, a bird, lays eggs on the banks of *Nal*, a place 13 km. (8 miles) away from Bikaner, it predicts drought.

Most people of the district have a strong faith in astrology, and every auspicious occasion is determined by the proper constellation of the planets, known as *Mahurat*, for which some Brahman is generally consulted. Astrologers are quite popular for reading future events in the lives of individuals.

Nomenclature

In the matter of nomenclature Bikaner differs in no way from the neighbouring districts of the State. The higher and middle classes of the Hindus have two names, the first of which may be that of some god, or a term suggestive of (a) auspiciousness and happiness in the case of a Brahman, (b) power and protection in that of a *Kshatriya* and (c) wealth and prosperity in that of a *Vaishya*. The second part of the name is usually indicative of the division to which the holder belongs, e.g., Dan, Das, Datt, Dayal, Deo, Karan, Prasad among Brahmans; almost invariably Singh among *Kshatriyas*; and Chand, Mal, Raj among *Vaishyas*. A third name, showing the man's clan, caste or occupation, is sometimes prefixed or added, e.g. Rup Singh Parihar, Purohit Ganga Ram, Mul Chand Bagla, Seth Bhagwan Das etc. The *Sudras* on the other hand, usually have monosyllable name which, as pronounced, not infrequently ends in the letter "O"—for example Manglio, Padmio, Rawatio. In all the castes popular names are also given following deities (Ganesh), days (Mangal Chand), dates (Gyarsilal), rivers (Jamana Das) etc.

The female names are generally indicative of the names of goddesses, rivers and flowers, that is, Saraswati, Durga, Ganga, Champa, Chameli etc. and suffixed mainly by Bai, Devi or Kanwar. In rural areas the nomenclature of males is adopted on similar principles as in urban areas but in actual practice the diminutive form of the first prefix is adopted, just as 'Motilal' is called Moti; females are called by such names as represent the feminine gender of the names of their husbands. Thus Meghti would be the wife of Megha and Jethi would be the wife of Jetha.

In names of the localities, the suffix-sar (meaning a tank) seems to be most common, that is, Napāsar, Bhinasar, Ambasar, Malasar etc. Next comes *pura* and *wala*, both meaning place or habitation e.g.

Amarpura, Karanpura, Lakrawalla, Gojaliwala. Such endings as *garh* (fort) e.g. Chak-Madhogarh, Chhatargarh are also found. Some places are also named after their founder or some leading personality. Buildings predominantly bear the name or caste of their owner and the *mohallas* are commonly known by the caste or community residing there, with *chowk* or *pirol* added e.g. Vyason-ka-chowk, Degon-ka-chowk, Beganion-ki-pirol, Badhanion-ka-chowk etc.

Domestic animals are often described according to their colour, that is, *Kali* (black) *Dholi* (white) cows; and *Kalia* (black), *bhuria* (white) etc. are names given to dogs. In cities dogs as elsewhere, are generally given English names, that is Tomy, Tiger, Puppy etc.

SOCIAL LIFE

Joint family system

The joint family system still forms a dominant feature of Hindu society in the district, though loose ends have appeared in the tight hold it had for centuries. The disintegrating process came to the fore with a number of factors emerging under the changed conditions of life. When living was simple and economic struggle less onerous, it served the society well by providing a *de-facto* insurance against sickness, employment and old age, but when the economic conditions became hard and the way of living more complex, it became too much of a burden on the head and other earning members of the family to feed drones on a shrinking hive. Individualistic trend in modern education and thinking is also eating into the vitals of this system. The immediate cause is provided by petty jealousies and dissensions among the ladies of the household. Disparity in the income of the husbands, temperamental incongruities and lack of firm control by the head of the family as the one belonging to an older generation could exercise, on the women is strengthening the disruptive forces. Then, life is so hard that people are compelled to leave their hearths and homes in search of a gainful occupation. The beginning of the disintegrating process has definitely set in, and cracks have appeared in the joint family fortress even in this district where orthodoxy and love of tradition hold sway over the minds of many a man.

Inheritance

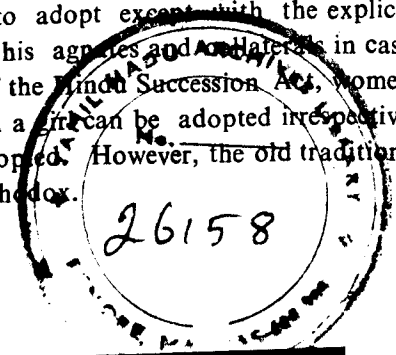
The ordinary law of primogeniture was applicable to Jaghirdars irrespective of whether he was a Hindu or a Muslim. In case of others, succession took place according to the personal law by which a person

was governed-Hindu law in the case of Hindus and Mohammedan Law in the case of Muslims. The system in vogue in the district was patrilineal. The Hindu Succession Act, 1956, which now regulates succession amongst Hindus (including Jains and Sikhs) and which confers rights of inheritance on the daughter, in the property of the deceased father, has so far, had no effect in the rural area, where the customary law is still in vogue. The people are, of course, aware of it but the new idea of equality between sons and daughters in matters of succession does not find favour with them. They take it to be against the tenets of their faith and apprehend that it would create complications in the joint families. The Hindu Law also conferred no right on women to inherit absolute and dominant interest in the property of her husband. She had only a limited interest in it till her life or re-marriage. It was meant mainly for her maintenance and recognised religious performances, though she enjoyed absolute rights as far as *Stri Dhan* or women's property, was concerned. This consists of ornaments or valuable presents given to her by her father, husband and other relatives. The Hindu Inheritance and Succession Act, 1956 now admits the widow as an equal sharer with sons and daughters of the deceased to his property. She can now have absolute control over, alienate or dispose of, her share of the property. Nevertheless, this change also has yet to find roots. The orthodox people of the district still have not taken to this legislation favourably and often deny her the rights which the law confers, unless she takes recourse to the courts.

Adoption

The Mitakshara Law of adoption, as interpreted by the Banaras School, is in vogue in this district. Whenever a Hindu has no male issue, he adopts one of the male children of his relatives, preferably a brother's son. The adopted son like a real son, enjoys all legal rights and privileges of the adoptive father and at the same time, loses all claims to inheritance and other privileges in the family of his natural father. A legitimate son born subsequent to an adoption, takes precedence over the adopted one who is treated as a younger son. Formerly, a woman had no right to adopt except with the explicit consent of her husband, or that of his agnates and Affinials in case of a widow. Under the provisions of the Hindu Succession Act, women can now adopt at their will and even a girl can be adopted irrespective of the age of the adopter and the adopted. However, the old traditions die hard and still persist with the orthodox.

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Polygamy

Though Hindu Law lays down no restriction on the number of wives a person can have, yet force of tradition and pressure of public opinion worked for monogamous marriages amongst Hindus in general. Among certain classes of Hindus in the district, however, polygamy was traditionally allowed and they could keep as many wives as they desired. Hypergamous marriages sometimes in the past, used to be the pride of the landed aristocracy, but the practice has completely disappeared now. Polygamy now is not only forbidden by public opinion as before, but has been made an offence under the Hindu Marriage Act, 1955. The law provides that neither party can marry again with a spouse living at the time of marriage. Though according to Mohammedan Law, Mohammedans can have more than one wife, the number being restricted to four, yet in this district they rarely have more than one, due to economic factors and general awakening. In the case of the Government servants, generally, the State has prohibited the marrying of second wife, without the sanction of the Government. The Hindus (the term includes the Sikhs and the Jains for the purpose of the Hindu Marriage Act) and the Christians are now by law monogamous.

Restrictions on Marriage

The Hindu Law and customs impose certain restrictions on contracting marriage, the most common being that no marriage can take place among families of the same *gotra*; where marriages in the same *gotra* are permissible, restrictions extend upto six degrees in the case of male line and four degrees on the maternal side. The Hindu Marriage Act has removed the restrictions so far as marriages among families of the same *gotra* are concerned, but marriages among *Sapindas* are still not recognised by law as well as custom. The caste is essentially an endogamous unit and no man could marry a woman except one from his own caste, which could in practice, mean the sub-caste. Inter-sub-caste marriages are not common, but of late, they are taking place but on a small scale. Inter-caste marriages among the educated persons are now being tolerated which though permissible under law, are not favoured by the society.

To a Hindu, the object of marriage is to have a son to perform the last rites of his deceased parents, without which there is believed to be no salvation for them. In Hindu and Jain families the order of priority of marriage among males is determined by their seniority in age. Muslims too follow it as they are mostly converts from Hinduism and

hold old beliefs towards caste and social practices. The marriage is universal in the district as in the rest of India. Love marriages are few and far between.

Marital Status

According to the 1961 Census 11.3 per cent males and 37.7 per cent females, of the respective population in rural areas, and 5.0 per cent males and 25.6 per cent females in the urban areas, in the age-group of 10-14 years were married. It reveals the extent of child marriages in the district; of the girls and boys aged 14 or less, about 8 per cent amongst girls and about 3 per cent amongst boys were married according to 1961 Census figures as against 10 per cent among girls and 10 per cent amongst boys in 1951.¹ It shows that child marriage, especially amongst boys, is on the wane. Generally, the marriageable age among girls now is between 15 to 25 and among boys, 18 to 30. The 1961 Census reveals that out of every 1000 males, 420 were married, 550 unmarried and 30 were widowed or divorced. The corresponding figures for females were 475, 421 and 104 respectively. The number of divorced or separated males and females being 77 and 86 only indicates that divorce is unusual and the law is invoked in rare cases only. Another striking feature is that number of widows is comparatively much higher than widowers which implies that men usually remarry. The number of married women, totalling 100,653 in the district, as against 97,663 married males, reveals the existence of polygamy.

Marital Reforms

First attempts to eradicate the evil of early child marriage were made with the enactment of the Bikaner Hindu Marriage Act, 1928. It made penal the marriage of a boy under 16 years, and of a girl under 11 years. The marriages of girls above 11 years, however, were left untouched. After the formation of Rājasthān the provisions of the Sarda Act were made applicable, which prohibits the marriage of a boy below 18 and a girl below 15. These measures have succeeded to some extent but the evil still lingers. The educated and the progressive people, have discarded the child marriage, while the orthodox and the illiterate still cling to it.

Marriage Customs

The marriage rituals among the higher castes are the same as

1. Based on Sample Survey, 1951 Census.

elsewhere in the State with minor variations. Marriages still continue to be arranged by the parents of the boys and girls. Due importance is given not only to the eligibility of the girl proposed to be married but also to her family, whether it comes within the acceptable standards of the bridegroom's family, in caste, status and financial position. It is also ensured that it is not within the prohibited degrees of marriage relationship. The considerations in selecting a boy for a marriage have undergone some change. The mere fact that the boy belongs to the higher group in the sub-caste is not sufficient. His education, economic independence and future prospects are now the decisive factors. Presents in cash and kind are made to the prospective bridegroom and his guardian at the time of settlement of the marriage. This ceremony is called *Sagai*. It is followed by *tilak* or *tika* which is held at the house of the bridegroom when the bride's father sends presents both in cash and kind e.g. silver utensils, clothes, sweetmeats and fruits, according to his status and capacity. Either simultaneously with the above, or after sometime, there is a *lagan* ceremony in which the time fixed for the marriage is intimated by the bride's father. The bridegroom then goes with his party, or the *barat*, as it is called, to the bride's house. On the date fixed for the marriage, there is a ceremonial reception of the bridegroom and his party. This is followed by *Kanyadan* in which the father or guardian of the bride, offers the bride-groom his daughter or ward to be his wife. The actual marriage ceremony is variously known as *Hath Leva* or *Bhanwar* or *Saptapadi* or *Phera*, which consists in taking seven steps round the nuptial fire by the bridegroom together at the predetermined auspicious hour. Members of the family, relatives and friends of the bride's side take part in the *Kanyadan*. The ceremony is begun by honouring the bridegroom and making presents of a small ring or a coin or otherwise; and is followed by actual offering of the bride. The last ceremony is the *bida* or farewell to the bride. An interesting custom among the Pushkarana community in the district is that mass marriages take place simultaneously after every four years. If some one fails to attend the ceremony, he is to wait for another four years; exception, however, is allowed when the marriage is celebrated in *Ikalsava*.

Marriage ceremonies among the Muslims are much simpler as compared to those of the Hindus. The actual *Nikah* ceremony differs in the case of Shias and Sunnis on the one hand, and the Rajput converts on the other, who follow their old customs along with the

Islamic rituals. With the Muslims, marriage is a contract and the dowry or *mehr* is always fixed before the ceremony takes place, the amount of *mehr* varying according to the status of the contracting parties. The proposal for marriages, as in the case of Hindus, is usually initiated by the parents of the bridegroom, rather than those of the bride. Muslims also follow the ceremonies of *mangni* or betrothal and taking of *barat*. Before the actual marriage ceremony is solemnised, consent of both bride and bridegroom is obtained in the presence of witnesses. Legally the bride's consent is obtained through vakils because of faninine modesty and *purda* system. As soon as the consent of the parties to the marriage is communicated and announced and the *mehr* fixed, the *Quazi* recites the *Khutba* and the marriage is solemnised. Friends, relatives and other persons who attend the marriage, are then entertained and auspicious dates and candy are distributed. The bridegroom is then introduced to relations and the parting ceremony or *ruksat* takes place. The restrictions on marriage among the Muslims are not many and marriages among cousins are permitted and even considered desirable. Marriages between uncle and niece, brother and sister, half-brother and half-sister are not possible. They are thus closely endogamous.

Dowry

The system of dowry is prevalent mainly among the high caste Hindus, though in one form or the other, it exists in nearly all the castes. Among the Brahmans the father of the girl accepts money from the boy's side though this is not the practice among those who are rich and affluent. Among the Rajputs and the Baniyas it is the girl's father who gives dowry, but among Jats and other communities, the father of the boy has to give cash to the father of the girl. In some cases a definite amount to be given by the bride's father is negotiated before the marriage is settled. The amount so settled is paid either at the time of settlement of the marriage or of betrothal, or a part is given at the betrothal and the balance at the time of various ceremonies which precede the actual marriage. Usually ornaments, clothes, furniture and house-hold goods are given to the bride. The dowry, as generally understood, refers to the negotiated cash payment and not to the voluntary presents which are usually given to the bridegroom by the father of the bride and her other relatives to enable him to set up smoothly a new home. Effects of the legislative measures, banning dowry are yet not clearly discernible.

Divorce

The dissolution of marriage in the various communities is regulated either by custom or their personal laws or by special legislations recently enacted. The Christians are governed by the Indian Divorce Act, for marriages registered under the Christian Marriage Act. The Mohammedan Law on divorce governs Muslim marriages. Among the Scheduled Castes and some lower-caste communities of the Hindus, divorce or dissolution of marriage, was permitted by custom and the society recognised such separation and remarriage of the separated couple. Divorce was not recognised under the Hindu Law, since marriages were regarded as indissoluble sacrament until the Hindu Marriage Act of 1955 was passed. It enabled the high caste Hindus to seek divorce through court in restricted circumstances. A few cases of desertion of wives by husbands have always been there as exceptions to the general rule of conjugal fidelity.

Widow Remarriage

The marriages of widows among high-caste Hindus are still not so common as in backward and Scheduled Castes, where a woman is valuable second string to the economic bow of the family. Widow-remarriage is viewed with favour in Muslim law, but in practice, due perhaps to the influence of Hindu lineage and neighbourhood, it is not in vogue in this district. In the rural areas, Jat widows often marry their husbands' younger brother, or occasionally some one else, and it is called *Choori Pahnana* in the former case, *Nata* or *Kareva* in the latter. Among Bishnois too, a widow may remarry her husband's younger brother if she so desires, though it is not obligatory, but elder brother of the deceased husband cannot marry his younger brother's wife. The rule restricting the marriage of persons of the same *gotra* is applicable to the widow also. Widow remarriage is performed without any pomp and show. The would-be-husband simply presents a new suit of clothes and a set of bangles as symbol of wedded life, and takes her to his home on a Saturday night after dining at the house of her parents. By another custom a person who remarries a married woman has to pay compensation locally called *Jhagda* to her former husband and this is prevalent among some of the communities who permit widow remarriage.

POSITION OF WOMEN—Women belonging to the upper and middle classes are still, as they have been from times immemorial, largely dependent on their husbands economically. The working class women

all along work with their men and lend a helping hand and eke out their livelihood. They naturally enjoy greater freedom of movement and action. Among the higher caste families of Hindus, especially the Rajputs, and the Muslims, strict purdah is observed by women and their movements are confined to the four-walls of their homes, or those of their relatives. Despite the fact that at present the district has unique privilege of being administered by a lady Collector, the subordinate social position of women in the area is too apparent. Thanks to the impact of modern education with its liberalising and emancipating influences, the purdah system with its social seclusiveness and complex of inferiority is losing ground among the younger generation, slowly but steadily. Its pace will be quickened by spread of more education among girls. The district can take pride even now in some of its women social workers who are playing a significant role in all spheres of life. Their example will knidle the torch of enlightenment, which will sweep in its stride all dark shadows of tyranny of tradition, which make them cling to the chains that bind them.

Prostitution

Prostitution as an institution has always been an evil adjunct to corporate life. Attempts made to restrict its influence are met with partial success. Introduction of Immoral Traffic Act, 1956, providing for the suppression of brothels and trafficking in women, has partly succeeded in vacating the red light districts in as much as, fallen women still carry on the profession clandestinely. The reported figures of the number of prosecutions launched or convictions secured in this respect, do not throw much light on the actual extent of the evil, because of legal difficulties in launching and securing prosecutions and convictions under the act.

Drinking

People generally abstain from liquor. It was common among the Rajputs and some of the hard working classes. It is noticeable that the younger generation of Rajputs is much less addicted to drinking than the older. The taking of opium was also common amongst the Rajputs but now its intake has considerably dwindled due to restrictions imposed by the Government, as opium is now sold on ration cards supplied to addicts on medical grounds.

DAILY LIFE—Life in the villages starts pretty early in the morning. People go to the fields by 7 A. M., work there till noon, take

rest for a couple of hours, and again resort to work right upto 6 or 7 P. M. Women also get up early in the morning, grind their corn for the day's requirements, milch the cows and buffaloes, churn the curd, fetch water from the wells, sweep their houses, courtyards and the lanes outside the houses, and go out into the fields to assist their men folk in their work. In the evening, the villagers assemble together, gossip and smoke and then retire for the night. From June to October the farmers are fairly busy first in preparing the land for sowing and then in harvesting operations. The scarcity of water, the shortage of food and the rigours of the climate have hardened their life and mental attitudes. They are apt to fall a prey to sluggishness of mind and become resistant to new ideas for their socio-economic uplift.

Life in the towns generally starts at about 7 A. M. in summer and 9 A. M. in winter. The business community and artisans work for the whole day between 8 A. M. to 9 P. M. The life of workers and office-goers is regulated by the fixed working hours, that is 9.30 A. M. to 5.30 P. M. Persons without work kill their time in scandal mongering, playing cards and gossiping. The women-folk start their work early in the morning because most of them have to prepare food. They generally remain indoors and keep themselves busy in household chores.

Home Life

HOUSEHOLDS—The distribution of the households at 1951 and 1961 Census was as follows :

Administrative Unit	Households	
	1951 ¹	1961 ²
Total	65,857	78,073
Rural	34,301	44,989
Urban	31,556	33,084

1. Census, 1951, *Rājasthān and Ajmer District Census Handbook*, Bikaner, Part I, p. 63.

2. Census of India, 1961, *Rājasthān District Census Handbook, Bikaner District*, p. 8.

According to Census figures the size of the house-holds varied from one or two members to more than ten. In the rural areas 50 per cent of the households were of medium size, consisting of four to six members, 27.8 per cent of small size consisting of less than 4 members and 22.2 per cent of large size, consisting of more than six. In the urban area the households are distributed evenly over the various sizes, being one-third in each category.

According to the sample survey carried out at the time of the 1961 Census regarding accommodation, households with one room tenement were 25.5 per cent, with two 29.0 with three, 21.3 with four, 11.5 and with five or more rooms were 12.7 per cent; and people living in them formed 18.6, 26.8, 23.2, 14 and 17.4 per cent respectively of the total population. The distribution of this accommodation in different categories of households in rural and urban areas is as follows¹ :

		(Percentage)				
		One room	Two rooms	Three rooms	Four rooms	Five or more rooms
1. Households	Rural	24.4	32.1	23.3	11.5	8.7
	Urban	27.1	24.9	18.7	11.5	17.8
2. Population	Rural	17.9	29.9	25.5	14.0	12.7
	Urban	19.5	22.6	20.1	13.9	23.9

Furniture

Except for string cots, there is practically no furniture in average village home. Sometimes, in the mud huts, there are shelves built in the walls for the storage of articles and alcoves for housing the deity. Women decorate the houses by painting the walls and doors. *Madhna* or the indigenous art of household painting is skillfully designed with a chalk solution and on festivals with *gulal*, *roli* or flour. In towns, chairs and tables have made their appearance in middle class families. The more well-to-do among them, have more pretentious furniture; a drawing room suite, small tables and *niwar* beds. The rich maintain a drawing room with carpets and sofa sets and decorate it with old pieces of art objects. In families with older traditions the practice of having a sitting room furnished with floor spreads and pillows is still in vogue but is yielding place to new style of furnishings.

1. Based on 20% Sample Survey.

Dwellings

The common types of dwellings in the villages are circular huts with walls made either of mud or bamboo plastered with mud and covered by a thatched roof. In a typical household there are three or four such huts which serve as living rooms, a separate structure known as *Kotha* which is meant for storing the grain, a separate kitchen and a cattle-shed that can, in time of need, be converted into a guest-house. A circular hut is locally termed as *jhopda* and the gable ones which are closed on three sides as *paidwa*. People put enclosures of thorny hedges around their dwellings as a protection against the sand drifts and hot winds. The houses of village traders and the *thakurs* are usually built of sand-stone and mortar.

In the towns, one may see the magnificent masonry *Havelies* where the rich live, mud dwellings of the fairly comfortable type and the humble huts of the poor. The latter, which are made of grass, twigs and roots of the *phog* bush, are mostly circular and look like small ricks. On the outskirts of bigger towns one may observe modern style bungalows and flats making their bright appearance.

Dress

Males in the rural areas usually wear *Dhoti*, *Angarkha* and *Potia* (head gear). The *Dhoti* or the lion-cloth which covers the lower body, is generally smaller than the standard *dhoti*. It is a sheet of cloth of local manufacture measuring about 10 feet by 3 feet. The upper part of the body is covered by a *Bandia*, *Angarkha* or in some parts of the district by *Bandi*. It is like a short-coat tightly fitting the body and fastened with tapes, over the chest or on the left side. The third is the covering for head known as *Potia*. In fact, the headgear is poor imitation of the Rajput *Safa* (turban).

The well-to-do classes including the Rajputs, substitute *Dhoti* by a *Churidar Pyjama* and *Angarkha* by a *Kurta*, which is a collarless and cuffless shirt. Over the *Kurta*, however, is worn the *Achkan* or the *Lamba angarkha*, a buttoned up long coat touching the knees. The turban is either called by its universal appellation *pag* or its variation *Pagra* or *Pecha*. The *Pecha* (turban) is folded with a strip of fine cloth. In local dialect, the word *Moliya* is used for it. Five-coloured turban is the coveted type known as *Pachranga pecha* or *Pachrangi Pagri*. Marwaris use turban or *Pagri* which is kept ready

made to be put on like a cap. Many a time, a kerchief, locally known as a *rumal* is tied round the turban or the *pagri* and sometimes around the neck.

The dress of the ladies usually consists of a coloured skirt or a petticoat, a tight bodice and a sheet of veil over the head and around the body. For the lower part of the body the *Ghagra* or *Lahanga* (skirt with vertical pleats) worn below the navel is almost universal. Formerly it was made of triangular pieces and was known as *Kalidara* each piece having the bud of a flower. All such pieces, sewn together formed *Ghagra*, as they were wider at the base and tapering towards the waist tied around with a string. *Ghagra* made of rectangular pieces has pleats with flaring width near the ankles and waist tight on the upper side. It lends grace to the wearer and is fared as *Ghera Ghumalo* in the folk songs of Rājasthān. High class ladies sometimes wear a narrow piece of cloth, different in colour and ornamentation from that of *Ghagra*, suspended centrally on the front side. It is called *Phetai* and indicates that the bearer is a lady whose husband is alive.

Upper part of the body is covered with a bodice called *Kachali* or *Kacavo*. Folk-songs also become lyrical over this tight-fitting bodice. This is artistically embroidered. There is then the scarf popularly known as *Odhani* which wraps the body. It is usually wider than the normal *Sari* as it covers the entire body from head to foot. Its one end is tucked at the navel or the waist and the remaining portion spread to the left covering the back and head. The other end dangling from over the head is either brought under the right arm-pit or tucked into the bodice.

Style of putting on male dresses varies in accordance with the community to which the wearer belongs, especially in regard to the turban. The Rajputs and those allied to them put on the Bikaner *Safa*, with curves on the left and right and tail suspended on the back; Maheshwaris and Brahmans wear round *pag*, Oswals a curved *pag*. The *Pagree* of the Marwari *seths* of Bikaner has a peculiarity of its own and is a common sight all over India with their peculiar dress, consisting of a silk *chola*, a silk *banyan*, a super-fine *Dhoti*, a pump shoe and multi-coloured *Pagree*.

The Rathis in Pugal and Magra put on white turban keeping the middle of the head uncovered, a long and loose *Chola* and a *Loongi* or

Tahmad Gujar wear *Dhotis*, half shirts and round *Safas*. Despite slight differences in the mode and style of dress from community to community, the general dress, however, is a shirt, a *Dhoti* and a turban for the males and a *Ghagra*, *Kurti* and an *Odhni* for the females in the rural areas.

Muslim males wear a round turban, an *Ajarak* a loose cloth on the shoulder which is spread on the ground during *Namaj*, a full sleeved but collarless *kurta* upto knees and a *Tahmad*, a long sheet of cloth usually printed and worn loosely round the waist. They wear trousers and not *Dhotis* and mostly use an *Achkan* or long coat at social functions.

The Muslim women wear *Paijama*, a long *Kurta*, usually half-sleeved, an *Odhni* and when going out of doors, a *Jhagga* which resembles a flowing gown gathered up at the waist in innumerable tucks, but is put on like a coat, as it is open in front and has close fitting sleeves. The *Burqa* is also used in towns and villages.

The dress-habit of the people especially females are, however, suffering a gradual change with the changing times and wider contacts. More and more women are taking to *Saree*, and blouse type *choli* is replacing *Kachli*. Many men in towns are seen strutting in western attire, which was till recently considered a symbol of their education and status.

Ornaments

Men generally do not wear ornaments except the rich who put on gold necklace and finger rings. A few of them, however, wear rings of gold or silver in their ears and silver anklets. Women, of course, are as usual fond of ornaments, and those belonging to affluent families mostly revel in gold, while those from the poorer sections and the rural area, generally wear ornaments made of silver. The most common ornament for women is the *borla* made of gold or silver studded with glass-beads. *Khuraba*, *Jhumars* and *Damni* are worn in the ears, while *Phoolari* in fingers of feet and *Nath* and *Long* decorate the nose. The ornaments worn in the neck are *Hasli*, *Kanthi*, *Tussi Timania* and *Dora*. On the hands are *Choori* (with or without gold patts), *Choori*, *Bajuband* and *Dantra*. The waist is encircled with a chain called *Kanakti* and on the ankles and feet are worn *Kada*, *Nevri*, *Anwala* and *Payal*.

During the princely rule wearing of gold ornaments on the feet was a privilege which could be enjoyed by those on whom the State had conferred it. No such restrictions exist now. In villages, *Hammel* a neckless of silver Rupees is very common. Women-folk is fond of ornaments and when they cannot afford gold and silver ornaments, *Rang* ornaments are used.

In rural areas, though ornamental tattooing is not very common yet it is sometimes adopted to decorate the body. Followers of Ramdeo ji mostly get tatoo marks representing the feet of the deity, known as *Ramdeoji-ka-paglia*, on their arms. Occasionally a tattoo mark representing the figure of a peacock or a flower pot is also put. Tattooing is done with the help of machines by professional tattooers, who do not belong to any particular class or community. At times, street needle-sellers also do this job.

Use of a variety of modern cosmetics amongst the educated ladies, and those belonging to well-to-do families, is getting popular, but those who still cling to old ways of living, and in rural areas *Mehndi* (myrtle paste) is still applied to decorate hands and feet. Men-folk in rural areas pridefully don their moustaches, mostly in a plain manner, but the Bishnois distinguish themselves by keeping the two sides of the hair on the upper lip apart by shaving a portion thereof in the middle and by trimming their beard. Meghwals and others of low caste keep their moustaches plain.

Food

The staple food of the people is *Bajra*. Other cereals used are wheat, barley, gram, jowar and occasionally rice. Wheat is consumed by rich people, generally in the towns, and by the poor and the rural community on festive occasions. The main pulse is *Moth* though *Moong* and *gram* are also eaten. The common vegetables are *Gawar-ki-phali*, *Kachri*, *Sangri*, *Tindsi*, (*Phophalia loa*) onions and radishes. The *Gawar-ki-phali* is the whole pod of *Gawar* and is eaten with thick *Bajra* bread called *Sogra*. *Kachri*, dried unripe and *Kakri* or cucumber, are also extensively consumed; *Sangri* is the pod of *Khejra* and its leaves were also eaten during famines. *Tindsi* when dried is called *Phophalia* and is relished with *Bajra* bread. The pods of the *Kair* and *Phog* are sometimes used as condiments and the use of chillies is very common. Water-melon and berries are the fruits available to the people in the rural areas.

Formerly, in years of scarcity, seeds of the various grasses, particularly one known as *Bhurat*, were used by poor people. The most common preparation is the *Rabdi* (porridge) or flour cooked in diluted butter milk generally in the evening and taken in the morning. Other dishes are *Khichra* that is, husked *Bajra* mixed with moth in the proportion of four to one with a little ghee added to it.

The food served in feasts held on special occasions connected with marriages, deaths, births and festivals, consists of *Dal-ka-sira* or *Halva* (pudding) made of *Moong-ki-dal*, *Atta-ka-sira* and *Churma* made of *Bajra-ki-roti* or wheat flour mixed with *Gur* or sugar and *Ghee*. *Kichra* is a speciality of *Akha Teej*. *Kheer* and other sweet dishes are taken during *Shradhs* and other festivals. It may be mentioned here that Bikaner is known for its *Rasgulla*, *Papad* and *Bhujia* which are also sent to other parts of the country.

HOURS OF MEALS—People in the city, generally, take only two meals a day; the first in the morning between 9 and 10 A.M. and the second in the evening between 6 P.M. to 8 P.M. The villagers take three meals a day. Their first meal, which is called *Sirvan* consisting of *Rabdi* and *Chhach* is taken in the morning at about 6.30 A.M. in the summer and about 7 A.M. in the winter before they go to the fields to work. The second meal called *Dopehri*, is taken at mid-day and consists of *Roti* of *Bajra* and some dry vegetable or *Chhachh*. They have their evening meal at about 7 P.M. consisting of *Bajra* bread with raw onion or *Chatni* of red chillies and sometimes *Khichra* or *Moth* and *Bajra* with milk or curd.

The conventional etiquette requires that shoes are taken off while taking meals. Food is kept at a slightly higher level than of the person eating it. Meals are taken in kitchen or on cots or *pattas*. In the city *Papar* is served at the end of the meals and is taken as a signal that nothing else is to come.

Communal Life

FAIRS & FESTIVALS—Fairs and festivals play a significant role in the life of the people in this district as in other parts of Rājasthān. Fairs provide the market places where local produce is sold or exchanged and where goods made in other parts or adjoining areas, are made available. They are often held at religious centres, and

inspire people to get-together to give a touch of gaiety to an otherwise drab and sordid existence in the villages. Festivals, on the other hand, are generally associated with some epochal event, actual or mythical, in the hoary past of the community and bring home to the people the vitality of their corporate living and further the cause of their emotional intergration with one another.

FESTIVALS—The principal Hindu festivals observed here are the same as elsewhere in the State. *Holi* is observed in *Phagun* (February-March), *Gangor* (festival of Gauri or Parvati) in *Chait* (March-April), *Akha Teej* in *Baisakh* (April-May), *Raksha-bandhan* in *Sawan* (July-August) when sisters tie charms round the wrists of their brothers, *Dushera* in *Asoj* (September-October), and *Dewali* in *Kartik* (October-November). *Basant Panchami* is the festival of spring. During *Navratara* in *Chaitra* goddess *Durga* is worshipped for nine days. Other important festivals are *Ram Navmi*, *Janmashtami*, *Shiv Ratri*, *Ganesh Chaturthi*, *Makar Sankranti* etc. New year begins on the 1st day of *Chaitra Sudi* 1. These festivals are celebrated in much the same manner as elsewhere though *Akha Teej* is celebrated with gay abandon, and is considered of special significance in this district because Bikaner State was founded a day before *Akha Teej* by Rao Bika, and it was the first day of celebrations connected with this historic event. It is popular among the youngsters as it is ear-marked for kite flying.

The main Muslim festivals are the same as in other parts viz. *Muharram*, celebrated in the memory of *Hazrat Immon Husan*, *Idul-Fitar*, *Idul-Zuha*, in commemoration of *Hazrat Ibrahim*, *Shab-i-barat* and *Bara wafat*, *Ramzan* is the month of fast and staunch Muslims keep fast for all the 30 days in the month for purification of one's soul and to control one's emotions.

The Jains celebrate the festivals of Mahavir Jayanti on *Chaitra Shukla* 13 and *Swetambers*, *Paryushan* terminating on *Samvatsari*, the fifth day of the dark half of *Bhadra* (August-September).

The main festivals of Sikhs are *Baisakhi*, the 1st day of *Baisakh* (April) *Nanak Jayanti* and *Guru Govind Singh's* birthday.

FAIRS—The following are the important fairs held in the district :

MOKAM FAIR—Twice a year a fair is held at Mukām (in commemoration of Jambheshwarji)¹, on *Phagun Krishna Amavasya* and *Aswin Krishna 14-Amavasya* in commemoration of Jambheshwarji the founder of the Bishnoi sect. It was initiated by his disciples on *Phagun Krishna Amavasya Samvat 1648 (1591 A.D.)*. This is attended by more than 12,000 persons and 3,500 persons respectively including Bishnoi *sanyasis* who come from all parts of the country to pay their homage to the illustrious founder of their sect. The most striking feature of the fair is the performance of big *Havans* on the platform of the shrine both morning and evening, extending four to five hours each time, at which *Mantras* and *Subdas* of Jambheshwarji are recited. Women keep awake all the night singing religious songs. All the expenses are borne out of donations comprising mainly *Ghee*, *Moth* and cash received at the time. *Moth* is stored and utilised for feeding the pigeons and birds all the year round and *Ghee* is used for performance of *Havan* on the occasion of the fair and afterwards.

KOLAYAT FAIR—The name of Kolāyat, a place of pilgrimage, originates from the Sanskrit word *Kapilayatan*. The mythological account of *Kapilayatan* as narrated in *Skandh Puran*, records that *Maharishi Kardam*, the son of Brahma, the creator of the Universe, married *Devhuti*, the daughter of Manu. She gave birth to *Kapil Muni* the propounder of the *Sankhya* system of Hindu philosophy. While journeying towards north-east *Kapil Muni* was bewitched by the natural beauty of this place and chose it for performing *Tapsya* (penance) for the redemption of the world. It is said that the saint did not remain there with his whole *atma* (soul) as only a fraction of it remained at the oasis and the remaining part proceeded on its original errand towards the north-east. But as the great saint had selected this oasis as the place for his penances, it was named after him as *Kapilayatan*.

In course of time this place acquired great sanctity and the gods are believed to have felt jealous of it, as they thought that instead of under-going untold hardships that were inevitable in performing the

1. Jambheshwarji, also known as Jambha Devji, Jambh Rishi or Jambhaji was born at Pipāsar, 16 kilometres from Mukām on *Bhadrapada Krishna 8, Vikram Samvat 1508 (1451 A.D.)*. His father was one *Jhabar Lohat* of the Panwar clan of Rajputs. It is believed that Jambheshwarji was born in the thirty-second generation in the direct line of the celebrated King *Vikramaditya*. He died in Mukām and was buried. *Census of India, 1961, Vol. XIV, Rajasthan Part VI-A, Village Survey Monographs Mukām, 1965.*

penances and sacrifices, or undertaking hazardous journeys to places of pilgrimage, like Ayodhya, Kasi, Puri, Dwārika, Kanchi, Avantika etc., people would attain redemption by taking an easy course of having a dip in the lake of *Kapilayatan*. They, therefore, planned to shift into the sandy desert but *Skandh Deo*, the son of God *Shanker* and Goddess *Parvati*, and the Commander-in-Chief of the armies of the gods, took pity on the suffering humanity and brought this sacred place to light for the benefit of all and sundry, so that they might attain the *summum bonum* of life in this dark age of *Kali* by having a dip in its holy water. Great sanctity thus is attached to a bath in the *Kolāyat* lake. It remains open for pilgrimage all the year round but great religious merit is attached to it in the month of *Kartik* especially the last five days of the month, known as *Bhishma Panchak*, which are more sanctimonious than the others. To take a dip on the *Kartik Purnima*, is considered to be the most auspicious.

On this day a fair is held at *Kolāyat*, and the villagers around participate in it with great gusto and never forget to have a dip in the lake and pay their homage by visiting the temple of *Kapil Muni*. The *Kolāyat* lake with its mystic tradition has a magical effect on the minds of the simple people and they reveal in singing songs in its praise deep in religious ecstasy.

The significant feature of the fair is *Deep Malika*, the lighted lamps of *atta* (flour) are made to swim in rows in the tank, which presents a fascinating spectacle. It is also considered auspicious. A large number of people ranging from 20,000 to 50,000 participate in the fair.

DESHNOKE FAIR—This fair is held on *Chait Sudi 1st-10th* and on *Ashvina Sudi 1st-10th* in honour of *Karniji*, a Charan women who is said to have possessed supernatural powers. The Royal House of Bikaner, Rajputs and other communities also have great reverence for *Karni Mata* who had blessed *Bika* with success in his mission. The temple of *Karniji* at *Deshnoke* is famous throughout Rājasthān and people from all parts pay their homage to solicit her blessings. The white rats, called *Kavas* are held in great reverence at the temple and are regularly nourished. Approximately 30,000 people usually assemble at the fair.

TEEJ FAIR—It is held twice a year once in *Savan Sudi 3* in *Damanion ka Chowk*, Bikaner and the other in *Bhadon Badi Teej* or *Kajli*

Teej near Junagarh fort. The main feature of this fair is the procession of Gori from Junagarh fort to the Chautina well, which is attended by thousands of people.

SHIV BARI FAIR—It is celebrated in honour of Lord Shiva on the 7th, 8th, 9th and 10th days of bright half of the month of *Savan* and on all Mondays of that month, to pay homage to the Lord known as Laleshwar. In fact, the whole of the month of *Savan* is replete with fairs and feasts as it is very pleasant to go to Shivbāri and to have a dip in the tank, which is full to its brim in the monsoon season and echoes the sentiments of the inhabitants in their often repeated phrase *Savan Bikanerro*.

NAGINIJI FAIR—The image of Devi Naginiji was brought from Jodhpur, and it is said that as it was being brought, the vehicle stuck fast to the spot where the temple now stands. Believing that the Devi desired the temple to be built there, it was constructed at that place. In commemoration of the Devi, a fair is held on *Dhabi Amavas* of *Bhadon* and is attended by about 10,000 people, mainly Brahmans.

NAR SINGH CHATURDASHI FAIR—It is held on *Baisakh Sudi* 14 simultaneously at Lakhotion-ka-Chowk and Dogon-ka-Chowk, Bikaner, in honour of Prahlad, who made his father Hiranya Kashyapa realise the powers of God. A sort of one-act play is staged wherein God-half lion and half human in form of *Narsing Avatar* is depicted rescuing Prahlad from the tyranny of his father by tearing open his abdomen. It is attended by about 20,000 persons.

SUJANDESAR FAIR—This is held at Sujandesar annually on the 10th and 11th day of the bright half of the month of *Bhadon* in honour of Ramdeoji, and is attended by about 10,000 persons.

KENYARA FAIR—This is held at village Kenyara in tahsil Lunkaransar on *Magh Sudi* 10 in honour of Ramdevji.

JETHA BHUTTA FAIR—This is held at Gajner on the 8th day of bright half of the month of *Ashvina* in commemoration of Jetha Bhutta, who was a sepoy believed to be gifted with supernatural powers and became a *Pir* after his death. The Muslims gather at his *Mazar* to get blessings.

KODEMDESAR FAIR—This is held on *Bhadwa Sudi* 14, at Kodemdesar in tahsil, Kolāyat to pay homage to *Bhaironji*. The temple

is said to have been built by Rao Bika, the founder of Bikaner city. People go to the temple especially for performing *Mundan* ceremony (shaving of head) of their children.

RIDMALSAR FAIR—Held at Ridmalsar on *Asoj Sudi* 7 in the memory of a Bhati Rajput girl who immolated herself. People gather there to pay homage to the *Murti* (idol) of Satiji.

DADA-JI-KA-MELA—It is a Jain fair held at Nal and Udrāmsar, on *Bhadon Sudi* 15.

Dance

Among the Marwari women, dancing has always been a popular pastime. There are many varieties of folk dances in their repertoire, and their activities are mostly centered in the city. *Ghumer* of Bikaner is famous in which a group of women putting on their colourful skirts dance in circles, clapping with small sticks. This dance is performed especially on the *Navratra* and the *Gangor* day. Its display is full of rhythm and charm and presents an attractive spectacle. *Jhumer* is a group dance in which the women dangle on their heads ornaments and flowers.

The *Dandiya-Ras Nritya* is also a dance. It is performed by a group of dancers, dancing in a circle and holding long sticks. The drummer takes his position in the centre of the circle with the drum hanging round his neck and sets the rhythm and pace of the dance. It begins with slow shuffling steps, but as the drum beats become faster, the steps grow swifter. The dance goes on round and round, arms waving and feet moving in step. Interspersed with the joyful exclamation of *Ho, Ho*, by the dancers to lighten the emotional tempo, it is an eloquent and rhythmical expression of the feeling of joy and exultation at the ringing out of the old season and ringing in of the new, and at the successful end of wintry toil by the sons of the soil. It is specially performed on the eve of Holi festival.

The Sidh Jats of the Thar Desert have their fire dance, which they perform around fire, during March-April at *Mela* (fair) held in honour of Guru Jasnath at Katariyasar to the accompaniment of songs, drums and pipes to commemorate Guru Gorakhnath. Among some communities like Bhangis, Sansis, Meghwals, etc. women dance on marriages and festive occasions which are more an expression of their joy and enthusiasm rather than any display of the art of rhythm.

Music

Both local and classical music have always been patronised in the area. The local music consists of *Bhajan* and *Kirtan*, heroic songs by professional bards and love songs of *Dholans*. Among the classical musicians *Kirtanayas* most of whom are from the Goswami community, hold a prominent place. The other musicians of the classical school are *Mirasis*, *Tawaifs* and *Bhagtans*. With the exception of songs of professional bards, the local music is still very popular. The special feature of the local music in the rural area of the district is that songs are sung to the accompaniment of *Chang* (a round musical instrument made of sheep-skin and played by hand). The classical music is fast losing its attraction and the light music is taking its place in popular appeal. The *rags* and *raginis* enjoyed in the district are *Mand*, *Looni* and *Holi*. Kamadias sing Pabuji-ke-Bhope on *maat*.

Folk lore

The folk lore singers have been always customarily assembling on the occasions of fairs and festivals to earn their livelihood by the singing of traditional songs. *Dholis* and *Dooms* are the most well versed communities in this form of musical fare. The striking peculiarity of Bikaner folk-lore is *Ramvat* for full week during Holi celebrations. Popular folk songs in the district relate to the exploits of Bika and Amar Singh.

Songs

There is no significant event in the life span of the common man in the district which is not accompanied by songs to lighten his pleasure or relieve his pang. There are various songs associated with every ceremony, festival, season and eventful moment. Women do most of the singing as a pastime which helps them a great deal in assuaging the unrelenting humdrum toil of their lives.

Amusements

SPORTS AND GAMES—In the rural areas, *Kabbaddi*, *Mar Dari*, *Gilli-danda*, *Lathi* exercises, *Ankh Michoni* and *Khoh* are popular games. The man indoor games of the villages are *Chauper*, cards and *Charbhar*.

The principal sports played in the urban areas are foot-ball, volley-ball, hockey, tennis and cricket, the last three being played in Bikaner city only. Gymnastic exercises and athletics are also a regular feature of sports life. The popular indoor games are table-tennis

(mainly in city), chess, carrom and *Chaupar*. The popularity of games and sports is on the increase as is evident from several tournaments organised, mostly by educational institutions, or games and sports organisations; and especially under the auspices of School Athletic Association, Bikaner, throughout the year. Bikaner has the proud distinction of having one of the biggest stadiums in the State with a seating capacity for 40,000 spectators.

OTHER RECREATION—Apart from the common social and religious festivals and fairs which occur during the various seasons and months of the year, the people in the rural areas do not generally have any special mode of recreation except assembling in groups at some common place to indulge in light conversation. Women hardly have any mode of recreation except gossiping at *Panghat* where they go in numbers to fetch water, or enjoy singing folk-songs according to the season. The rainy season is the most alluring one for recreation and swinging—a cherished enjoyment.

Ram lila, *Bhajan*, *Kirtans* from *Ramayan* and *Mahabharat*, and *Kathputli* (puppet) demonstrations are also popular means of recreations in the rural areas provided by itinerant performers. During recent years radio sets have been provided by the panchayat samitis in some villages where people listen to news and musical broadcasts with interest. Field publicity units also sometimes arrange film shows. Reading rooms and mobile libraries are new features which also provide facilities for recreation.

PUPPETS—The *Kathputli* (puppets) shows are very popular among the rural people. The puppets usually tell a story of some legendary hero. In this show *Kathputli* player holds a string in his hands and manipulates the various movements of the wooden dolls to depict the story.

CINEMAS—Cinema is becoming increasingly popular in urban areas. In Bikaner city there are three Cinema-houses namely, Ganga Theatre, Vishwa Jyoti and Prakash Chitra. Ganga Theatre is owned and controlled by the State Government and the other two are run privately. No other town in the district has a permanent cinema house.

CLUBS—The notable clubs in Bikaner are the Sadul Club, Bikaner Sporting Club, Railway Club, West Rajasthan and the Golf Club. The Sadul Club is one of the famous clubs in Rājasthān.

It has tennis courts, squash courts, billiards, skating-rink, table-tennis, a piano and a dancing hall, besides a number of other means of amusements, desired by club goers.

Impact of Recent Social and Economic Changes

The structure of the old social order has under gone a significant change and is passing through a phase of disintegration. Formerly, the social set-up was mostly feudal, and in the rural areas revolved round the central figure of the *thakur* or the big Jaghirdar who was the kingpin of local life. The end of royalty, the introduction of agrarian reforms, the abolition of jaghirdari, the establishment of the district administration on the lines of the provinces of the former British India, the reorganisation of local self-government and the new system of the panchayati raj launched by Democratic Decentralisation Scheme, have all had a powerful impact on the social set-up. The feudal lords have lost their privileged status in society and have considerable difficulty in adapting themselves to the new emerging pattern of life. The landless workers have begun to own the land, they cultivate. The common man has acquired the right to exercise his vote to elect the representative of his own choice to look after the affairs of the State. The increasing educational facilities and the growing political consciousness among all classes and castes of people has accelerated the process of dissolution of the traditional society. At the same time, it cannot be gain said that the changes so apparent on the surface, have been slow to percolate to the tradition-ridden minds of some of the people, and as a sequence, the votaries of the old crumbling social order still command respect and privilege. This factor has been psychologically helpful to them in defying the inevitable process of socio-political readjustment.

Some of the ex-jaghirdars have also not fully adjusted themselves to the change. A few of them are seeking employment or looking for other professions. This social up-heaval has caused great suffering to the retainers and hangers on of the old order, who found themselves without any new moorings. The professional musicians for instance, who earned their livelihood by singing and dancing or composing songs in praise of the jaghirdar, and the charans, the bards, who used to compile exaggerated histories applauding the landed aristocracy and depended for their livelihood on their patronage, find themselves without ostensible means of livelihood. The changes brought about by the progressive evolution of social order, have benefited the common

man to a considerable extent. He is now able to own land, improve his economic condition as a result of various measures sponsored under the development programme, and has acquired a new sense of dignity. With the increase in the wants of the people new articles of consumption and daily use, have found their way into the villages, and generally speaking, people there now enjoy a higher standard of living.

In the social sphere, the caste system is fast losing its old rigidity and the disintegrating process has begun. The old taboos regarding dress, food and types of dwellings, have mostly disappeared and a new social freedom and equality, is gradually emerging. Several castes and communities who were debarred in the old order from following a profession other than that of their fore-fathers, have recently taken to learned professions and industrial and commercial pursuits. The tendency to separate from the joint family is fast growing in the urban areas as the old family ties and loyalties are weakening.

CHAPTER IV

AGRICULTURE AND IRRIGATION

General

The general feature of this district with its elevation varying from 400 to 1200 feet above sea-level,¹ is a vast sandy plain interspersed with sand-dunes and sand hills. Most of the sand-dunes are found in the west of Bikaner tahsil and north of Lunkaransar. Only a few of them keep moving and the rest are fairly stabilised with trees and shrubs already growing on them. The height of these sand-dunes varies from five to a hundred feet. With average annual rainfall of 259.6 mm (10.22 inches), there is hardly any forest worth the name. South of the Bikaner City there is a considerable tract covered with brush-wood, which when green during and after rains, gives the impression of a growing young forest. This is called "Jorbir". The whole of this sandy tract, however, turns immediately after rains into a beautiful vast green expanse, covered with the richest and the most succulent grasses, making the district one of the best pasture lands in the country. The area under tahsil Kolayat which is located in the south-west of the district has different physical features as its former name *Magra* which in the local dialect means hard, suggests. The soil of this tahsil is level, firm and somewhat stony, but fairly productive under good rain-fall.

According to 1961 Census, 22.33 per cent of the people of the district as shown below, were engaged in agriculture directly or indirectly as against 36.95 per cent of the population of the State as a whole.²

Items	Bikaner district 1961	Percentage	Rajasthan 1961	Percentage
Total Population	4,44,515		2,01,55,602	
Males	2,32,699		1,05,64,082	
Females	2,11,816		95,91,520	
Agricultural Population				
(i) Cultivators	98,306	22.11	70,55,079	35.00
Males	57,962		42,05,067	
Females	40,344		28,50,012	
(ii) Agricultural Labourers	962	0.22	3,93,631	1.95
Males	653		2,30,193	
Females	309		1,63,438	

1. *Census of India, 1961, Rajasthan District Census Handbook, Bikaner*, p. iii.

2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (i). General Economic Tables*, pp. 4 & 6.

Co-operative Movement

The co-operative movement in the erstwhile Bikaner State was started as early as 1920 with a view to diminishing rural indebtedness, promoting thrift and self-help among agriculturists, artisans and other persons of limited means, and bringing credit facilities within their reach. In order to help the landholders in time of need with comparatively larger loans for improvement of their holdings, a Land Mortgage Central Co-operative Bank was started on 20th September, 1930.

There were 117 agricultural credit and multi-purpose societies with a membership of 3,953 as on 30th June, 1960.¹

The progress of agricultural credit and agricultural non-credit societies is indicated below during the Third Five Year Plan.²

Type of Societies	1961-62	1962-63	1963-64	1964-65	1965-66
	No. Member-ship	No. Member-ship	No. Member-ship	No. Member-ship	No. Member-ship
Agricultural Credit	153 8,856	157 10,441	168 11,291	184 13,280	186 16,237
Agricultural non-Credit	20 323	24 389	23 430	23 430	22 350

There was one farming society with a membership of 13 at the end of the year 1965-66.

Afforestation

During the Second Five Year Plan, special attention was paid to the plantation of trees on the rail routes, and road sides. Other land was also brought under plantations to maintain the soil fertility by checking the movement of sand. During the Second Five Year Plan period an amount of Rs. 2.56 lakhs was spent on the forest and soil conservation schemes in the district. During the Third Five Year Plan period an amount of Rs. 39 thousand was spent on the forest development in the district. The area under forests stood at 11 thousand hectares at the end of the year 1965-66.

1. *Statistical Abstract, Rajasthan, 1961*, p. 168.

2. *Statistical Abstract, Rajasthan*, yearly volumes for various years.

IRRIGATION

The main problem of the district is the lack of irrigation facilities. As stated earlier no perennial or semi-perennial river flows through it. There is practically no surface run off except in the case of a few nullahs which have been impounded. The under-ground water which is the main source of supply both for drinking and other purposes is generally found at a minimum depth of about 90 to 100 metres below the surface and even there percolation is so scanty that continuous drawing of water by a power driven machine would render it dry after a few hours. In some places the water is so saline and brackish as would be harmful not only to humans but also to the cattle and is therefore unfit for irrigation purposes. Due to inadequate and erratic rainfall the cultivable waste is difficult to put under the plough to any significant extent.

Irrigation by Lakes & Tanks

Most of the important lakes and tanks of the district are situated in the Magra area. We have already given some of their details in a previous chapter. From the irrigation point of view, they are hardly of much significance.

GAJNER LAKE—This is an artificial lake at Gajner with a capacity of 50 mcft. of water. The catchment area of this lake is about 129.5 sq. km. (50 sq. miles) and is fed by local streams. It belongs to the Maharaja and its water is used mainly for drinking and bathing purposes and is only sometimes put to irrigation use.

KOLAYAT TANK—This is a natural tank in a wide depression at Kolāyat with water stretching upto two miles. The depth of this tank is 6.09 metres (20 feet) and it has a capacity of 100 mcft. of water. The catchment area is about 194 sq. km. (75 miles) and the tank is fed by local streams. The water is used principally for bathing and drinking purposes.

GANGA SAROWAR TANK—This is another tank situated 17.70 km. (11 miles) north-west of Gajner village in Kolāyat (Magra) tahsil. It is an artificial lake constructed during the reign of Maharaja Ganga Singh and named after him. It is 1886.7 metres (6190 feet) long and the height of the bund is 9.14 metres (30 feet). It has a water holding capacity of 94 mcft. with a catchment area of 79.5 sq. km. (30.70 miles). The water of this tank irrigates nearly 873 *bhgas* of land.

BUND No. 1—This is an artificial lake situated near Mandal village 53.1 km. (33 miles) from Gajner in Kolāyat (Magra) tahsil and constructed during the reign of Maharaja Ganga Singh. It is 1575.8 metres (5170 feet) long with its bund 7.6 metres (25 feet) high. Its water capacity is 50.56 mcft. and catchment area 77.70 sq. km. (30 sq. miles). Fed by a local stream, it irrigates an area of 500 *bhgas*.

There are a few other small tanks in the district which are as follows:

1. **MUDH BUND**—It is situated near Mudh village 16 km. (10 miles) west of Gajner. It was constructed for utilising surface run off of Mudh valley for irrigation. Lying breached for many years, it is not being restored as its bund is spongy and cannot hold water for long. Its catchment area is 968 sq. km. (374 sq. miles).

2. **BUND No. 2**—It is situated near Sankelan village about 24 km. (15 miles) west of Gajner and was constructed in the early years of this century for utilising for irrigation, the monsoon flow of local nullahs in the vicinity. When full, it submerges 54.21 hectares (134 acres) of land and has a catchment area of 6.47 sq. km. (2.50 sq. miles).

3. **BUND No. 3**—It is situated near Bund No. 2. When full, it submerges 114 acres of land and has a catchment area of 7.8 sq. km. (3 sq. miles) and a capacity of 7.78 mcft. of water. The bund is *kacha* and is used for irrigation purposes.

4. **BUND No. 4**—It is also situated near Bund No. 2 and 3 above. When full, it submerges 139.61 hectares (345 acres) of land and has a catchment area of 5.2 sq. km. (2 sq. miles) and a capacity of 38.43 mcft. of water.

5. **DADAR TANK**—It is situated near Gudah village. When full, it submerges an area of 93.07 hectares (230 acres) and irrigates 40.5 hectares (100 acres). The catchment area is 15.28 sq. km. (5.90 sq. miles) and capacity 12.30 mcft. of water.

6. **SALLIA TANK**—It is situated near Gudah village, 24 to 32 km. (15 to 20 miles) west of Gajner. Its capacity is 13.50 mcft. and catchment area 11.66 sq. km. (4.50 sq. miles). It irrigates about 20.23 hectares (50 acres) of land.

7. **KHUDI TANK**—It is also situated near Gudah village, 24 km. to 32 km. (15 to 20 miles) west of Gajner. The capacity of this tank is 5.30 mcft. of water and the catchment area is 3.89 sq. km. (1.50 sq. miles). It irrigates an area of 10.11 hectares (25 acres) and when full submerges an area of 22.66 hectares (56 acres).

8. **JHINJHINIYA TANK**—It is situated near Bithnok, 34 km. (21 miles) west of Gajner. The capacity of this tank is 13.80 mcft. of water and the catchment area 10.36 sq. metres (4 sq. miles). It irrigates an area of 20.2 hectares (50 acres) and when full, submerges an area of 68.79 hectares (170 acres).

9. **KINIYA TANK**—It is situated near Kiniya Basti, 48 km. (30 miles) west of Gajner. The water holding capacity of this tank is 14.11 mcft. and the catchment area is 25.9 sq. km. (10 sq. miles). It irrigates an area of 28.32 hectares (70 acres) and when full, submerges an area of 67.17 hectares (166 acres) of land.

10. **BHATIA TANK**—It is situated near Bhatia village 58 km. (36 miles) from Gajner. The water holding capacity of this tank is 6 mcft. and catchment area is 7.77 sq. km. (3 sq. miles). It irrigates an area of 10.11 hectares (25 acres).

Irrigation by Wells

Since the level of the water varies from 300 to 600 feet, well irrigation is uneconomical. The area served by wells, therefore, forms a negligible proportion of the total irrigated area. Whatever little area is irrigated in the district, by wells (including tube-wells) is for food crops only. The extent of this during the last few years is indicated below¹:

Year	Area (in hectares)
1960-61	4
1961-62	17
1962-63	23*
1963-64	58*
1964-65	95*
1965-66	55*

1. *Statistical Abstract, Rajasthan*, yearly volumes for various years.

* Includes area irrigated by other sources.

There were 20 tube-wells and 973 pucca wells in the district, which were in use during the year 1965-66 for irrigation purposes. 106 wells were lying out of use during the same year. Water from the wells is lifted either in leather buckets by employing bullock power or by electric motor pumps. The number of wells in Bikaner district have been given in Appendix I.

The people of the district are keenly looking forward to the completion of the Rājasthān Canal Project which would enter Bikaner district at village Khārbāra in tahsil Lunkaransar and is designed to terminate at village Chāranwāla in tahsil Kolāyat.

The work on Rājasthān Canal Project is being undertaken in two phases. In the first phase, in Bikaner district 22 villages of Bikaner tahsil and 8 villages of Lunkaransar tahsil with an area of 5.18 lac acres will be benefited under the Fruit Development Scheme. Since the Rājasthān Canal Project would benefit mainly the western part of the Bikaner district, a scheme of lift irrigation has been sanctioned to benefit the eastern portion of the district. Under the lift irrigation scheme 41 villages of Lunkaransar tahsil with an area of 2.59 lac acres and 35 villages of Bikaner tahsil with an area of 3.93 lac acres will be benefited. Thus in the first phase of the Rājasthān Canal Project and through the lift irrigation project 106 villages with an area of 11.70 lac acres will be benefited.

In the second phase of the Rājasthān Canal Project 82 villages of Kolāyat and Bikaner tahsils of the district with an area of 14.25 lac acres will be benefited.

Thus, the total area to be benefited through both the phases of Rājasthān Canal Project and lift irrigation scheme is estimated as follows:

S.No	Name of the tahsil	No. of villages to be benefited	Area to be benefited (in lac acres)
1.	Bikaner	76	11.24
2.	Lunkaransar	49	3.59
3.	Kolāyat	63	11.12
Total		188	25.95

Apart from the irrigation benefits from the Rājasthān Canal Project, other development programmes like agriculture, animal husbandry, industries, colonisation, drinking water supply, communications,

medical and social services etc. which will be implemented in the area, will benefit the district.

SOIL EROSION

In the district soil erosion is mainly caused by winds. To check soil erosion a scheme was introduced in the Third Five Year Plan by posting an Assistant Soil Conservation Officer in Naukha. The main works undertaken under the scheme are *kana bundi*, stable mulching, ploughing, strip cropping, field bunding and levelling etc.

During the year 1964-65 an area of 536 hectares (1,325 acres) was brought under *Med bundi*, 10,348 hectares (25,571 acres) under *Kana bundi*, 7,723 hectares (19,085 acres) under *Bar bundi* and 6,770 hectares (16,730 acres) under Stable mulching. During the year 1965-66, *Med bundi* was done on 266 hectares (658 acres), *Kana bundi* on 31,374 hectares (77,526 acres) *Bar bundi* on 6,522 hectares (16,109 acres) and Stable mulching on 2,746 hectares (6,785 acres).

AGRICULTURE

Soil and Crops

The soil of the district is more or less totally sand except in a few villages where it is loam with shifting sand dunes. Due to scarcity of rains, the vegetative cover on the surface and organic matter in the soil is liable to wind erosion, as moisture retentive capacity is nil. Looking to the geographical and climatic conditions, only *barani* crops particularly *bajra*, *jowar* and pulses like *moth* and *moong* are grown. Wheat, barley and gram are also cultivated if there are timely rains.

Agricultural Operations

Crop pattern has remained largely unchanged over the decades. The actual ploughing operations begin with the first rain-fall and the harrowing of the fields is done within three days after it. The beginning of the monsoon is expected in the later part of *Jeth* (June). There is a common saying that on the first day after the end of the month of *Jeth* if there is a rumbling of clouds in the sky the next two months of *Asadh* and *Shrawan* would go dry and rain could not be expected before the month of *Bhadon*.¹ It is also commonly believed that it is inauspicious to plough fields on Tuesdays. Wednesdays are considered good for ploughing and Thursdays for harvesting.²

1. जेठ बीती पहली पक्का कटेक अम्बर हरे
भासाद सावन काठ सुखो, भादर हुये बिरखा करे
2. बुधवावनी बृहस्पत सावनी

Agricultural operations are started by harrowing the fields twice; first lengthwise and then crosswise. When new land is to be brought under the plough, bushes and shrubs are first removed. The ground is then roughly levelled by *Suhage*. The cleaning process is called *Sur*. The first of the ploughings is called *cheer*, second *chank* and the third *bijari*. A bullock ploughs one acre while a pair of bullocks or a camel can plough two acres per day. *Nidan* (weeding) is done when seedlings are about 15 to 20 cms. high. A harrow is passed between the rows of young plants to remove weeds.

Agricultural Crops

BAJRA—*Bajra* is the most important crop of the district. Sown in an area of 2,26,305 hectares during the year 1965-66, it also excels in quality. It is grown both in irrigated and dry lands in all the tahsils and it thrives well if there is timely rainfall. The tilling and soil preparation is begun by the end of March and finished by the end of April.

It is sown as early as *Jeth* (May-June) but the more usual sowing time is *Asadh-Sawan* (from the middle of June to that of August). When it is sown after the end of July, yield is generally poor. It is neither irrigated (except in canal area where one or two irrigations are given if rains fail) nor manured but ripens quickly, i. e. within three months. 20th August to 15th September is the normal period for inter-culture (weeding and hoeing) and harvesting is done by the end of September to end of October. *Bajra* is the staple food of the people and the stalks (*Karbi*) are used for fodder and thatching purposes.

In 1950-51, *Bajra* covered an area of 15,913 hectares out of 64,652 hectares of the total cultivated area in that year. It rose to 130,130 hectares during 1956-57 out of 351,397 hectares of the total cultivated area during that year. The production of *Bajra* in the district was 6,695 tonnes during 1956-57 which rose to 29,910 tonnes during 1959-60. Its production during 1960-61 (the last year of the Second Five Year Plan) was 10,888 tonnes which increased to 29,113 tonnes during 1962-63 with an increase of area under its cultivation from 1,86,812 hectares during 1960-61 to 1,98,297 during 1962-63. 1963-64 was a bad year in as much as the area under cultivation fell to 1,85,423 hectares and the production of *Bajra* was only 831 tonnes. During the year 1965-66 the area under cultivation of this crop was 2,26,305 hectares and the production was 10,146 tonnes.

JOWAR—*Jowar* or great millet is not commonly sown in the district as it requires a rather stiff soil. It is generally sown later than *Bajra* and takes longer to mature and also some-times needs irrigation. It is mostly sown for fodder purposes and for seed for the next year. Its seed rate is usually 6 to 8 pounds per acre, is sown in June-July and is harvested in October-November. Under normal conditions its grain yield is 1200 lbs. to 3500 lbs. of dry fodder per acre. *Jowar* for fodder is sown thickly in April-May and is ready by the end of May to be generally used as a green fodder.

The area under *Jowar* was only 10 hectares during 1950-51 which rose to 1,508 hectares in 1956-57. Its production during 1956-57 was 367 tonnes, which fell to a mere 14 tonnes during 1965-66, the area under the crop in the later year being 859 hectares.

WHEAT—This is sown in irrigated areas and occupied 164 hectares during 1956-57 showing a small increase from 109 hectares during 1950-51. But this area is negligible as compared to the total cropped area. The ploughing and soil preparation is done between 20th April and 10th May and from 10th September to 15th November respectively. The sowing is done from 20th October to 15th December and harvesting from 10th April to 15th May. The first watering is given at the time of sowing and 3 to 7 irrigations are given each at an interval of about three weeks. The seed rate is 40 to 50 pounds per acre and the yield about 1600 pounds per acre. Natural manures are generally used but with the efforts of the Department of Agriculture, the cultivators have started the use of Chemical fertilisers, viz., Ammonium Sulphate where ever irrigation facilities are available.

PULSES—The pulses include *Mash* or *Urd*, *moong*, *moth* and gram. These pulses except gram, are generally sown mixed with *bajra*, *jowar* and cotton. Gram is sown mostly with wheat or barley. A species of the kidney bean called *moth* (*Phaseolus aconitifolius*) comes next in importance to *Bajra*. This can be sown up to the middle of September and takes sixty days to ripen. It thrives best in a light soil. The yield per acre is much the same as that of *Bajra* and the stalks (*Guna*) leaves and pods (*Palosi*) supply good fodder for camels. These are used as vegetables and as split *dal* when ripe.

FRUITS AND VEGETABLES—The principal fruits are the water melon (*Matira*) and a coarse type of melon called *Kakri*. The former

spring into existence during the rains and are so plentiful that great quantities are thrown to the cattle; the seeds are pounded into a kind of flour which is mixed with that of cereals. For this fruit, Elphinstone¹ wrote thus: "In the midst of so arid a country, the water melon the most juicy of fruits, is found in profusion. It is really a subject of wonder to see melons, three or four feet in circumference, growing from a stalk as slender as that of a common melon in the dry sand of the desert. They are sown and perhaps require some cultivation, but they are scattered about to all appearance as if they grew wild. The natives assert that a large melon suffices to allay the thirst of a horse and his rider." Among vegetables, raddish (*Muli*) is most easily raised.

OIL SEEDS—The oil seeds grown in this area include *Til* (*Sesamum idium*) in autumn and *sarson* or mustard and *taramera* and rape seed in spring. Mustard is not very common but sesamum is cultivated on a large scale, occupying about 4 per cent of the total cropped area during 1965-66. This is often sown together with some other *kharif* crops and, as it requires little tillage and no irrigation and weeding, it is a popular crop sown in July-August and harvested in September-October. The seed is used for extracting oil.

There is practically no *rabi* cultivation in Bikaner district but in some pockets of Kolāyat tahsil where some water is available cultivation of wheat and barley only is done.

The area and production of principal crops in the district are given in Appendix II.

Manures

Soil of the district is deficient in Nitrogen and to some extent in Super-Phosphate. These deficiencies cannot be made good by the application of Chemical fertilisers due to want of irrigation. Traditional manure, however, is applied to the fields. It is formed by staking together of cow dung, petrified hay and other household rubbish and keeping it for some time so that the process of decomposition sets in. Sometimes cow dung or refuse of sheep and goats are used as manure even in their natural form. Herds of cattle are encouraged to graze in fallow fields so that droppings provide natural manure to the fields. During the year 1965-66 manure of compost pits numbering 2,236 was used, of which 132 were in Bikaner

1. Erskine, Major K. D., *Rājputāna Gazetteer*, Vol. III-A, pp. 344-345.

Panchayat Samiti, 684 in Naukha, 407 in Kolāyat and 1000 in Lunkaransar.

Crop Rotation

Rotation of crops is hardly known. The fields are sown for 2 to 3 years continuously till the soil shows signs of exhaustion when new land is broken or previously abandoned land re-cultivated. Due to this fact a considerable portion of the holdings of the cultivators consists of waste or fallow land.

Crop diseases

The main diseases prevailing in the district are, green ear disease of *Bajra* and smut of *Bajra*. These are being controlled by treating the seed before sowing and by destorying the infected plants. Damage from these diseases varies from 0.05 to 1 per cent.

Agricultural pests

Locust menace is common in the desert where it finds a congenial soil for laying eggs. The cultivators protect their crops by digging trenches round their fields, in which the hoppers are buried. Officers of Anti-locust Department of the Government of India, assisted by the Revenue authorities, play a great part in destroying locusts and hoppers.

Other local pests which cause considerable damage to the crops are (1) Grass hoppers, (2) Babel, (3) Gram cut worm and (4) Rats. Damage from these pests is about 5 to 8 per cent. Rats are being eradicated by poison baits, prepared by mixing one *tola* Zinc Phosphate, 4 *tolas* of bin and 20 *tolas* of flour. Grass hoppers, white ants, Katra, Babel and gram cut worms are being controlled by application of Bengene Hexa Chloride. Babel may also be controlled by light traps.

Departmental Activities.

Since there is no large scale cultivation, no separate office of the Agriculture Department has been established here. The District Agriculture Officer, Churu, is looking after this district. Only one Plant Protection Unit, consisting of a Plant Protection Supervisor and a Plant Protection Field Assistant, has been established in Bikaner. The Department, in association with the Panchayat Samitis is trying to improve production by suggesting better methods of cultivation through actual demonstrations, distribution of better seeds, application of manures and by taking steps to eradicate various pests and diseases.

Agriculture and Irrigation

Some of the important achievements in this respect are given in Appendix III.

Agricultural Implements

The agricultural implements used in the district are still mainly traditional, the more important of them being ploughs, harrows, levellers, clod-crushers, seed drills and hoes. The clod-crusher (*kurli*) is a heavy and flat piece of wood about 15 cms. thick and 80 cms. wide with varying length. It is dragged over the fields by bullocks to level the ground and gather the weeds. The indigeneous plough leveller etc. are made of wood and the seed drill is made of bamboo. Besides, there are several hand tools used in agricultural operations, such as *Kurhad* or *Kudali* (axe) *Kuladi* (pick-axe), *Phawada* (spade), *Khurpi* (weeding hoes), *Dantili* (sickle), *Korate* (bill-hoe), *Panar* (crow-bar) and the *Dantli* (rab with teeth). They are generally made by the village carpenter or the blacksmith.

During the 1961 Census, the Superintendent Census Operations, Rājasthān conducted special economic studies of two villages; viz., Mukam and Mudh in the Bikaner district. From these studies it was observed that the plough used was not much different from that in vogue in the other parts of the State. It consists of a thick curved wooden piece of a sufficiently heavy log of the *kikar* wood, pointed at both ends. The entire body of the plough is about 1 metre high. The bend in its middle divides it into two equal parts. In the centre there is a hole in which the *hal* is fitted. The lower part of the plough is fitted with an iron part, *halbani* which is held fast by an iron *chocu* (iron piece). The *hal* is a straight pole which differs in length according as it is to be driven by a pair of bullocks or a camel. In the former case the length is about 1.5 metres and in the latter about 3 metres. The draught pole is held in position by a small wooden piece *gangda* and at the other end by an iron *kili*. A yoke is fastened to the farther end of the pole and is driven by a pair of bullocks. If the plough is intended to be driven by a camel, the draught pole is attached to a frame work called *pinjdi* fastened tightly to the saddle which rests on the hump of the camel. The movements of the camel are regulated by a pair of strings which are fastened to a small wooden piece passing through the perforated nose of the camel. In the case of light sandy soils only one bullock is sufficient to till the ground. In this case the mechanism differs from the one used for a pair of bullocks. Instead of one draught pole there are two thinner poles which are attached to the plough by

pieces of wood called *tadiyas* and attached to the plough by *bagada*. At the other end is a fixed semi-circular wooden piece known as *jamanta* which rests on the neck of the bullock. The *halbani* (plough share) is fixed to the inner side of the lower end of the plough. It is about 30 cms. long, slightly pointed at the lower end and resembles a spear head. It is affixed to the lower part of the plough and slightly overlaps it at the tapering end. When the plough is moved forward, the *halbani* is tightly pressed against the wooden body. At the time of sowing, a *beejani* (drill) is attached to it. It is a bamboo tube fastened to the plough in such a way that its lower end is just a few cms. behind the plough share. The seeds fall through the tube into the furrow and are covered with soil when the next furrow is drawn.

The following table indicates the number of agricultural implements and machinery in use in the district at the time of 1966 livestock Census¹:

Implements	In Tahsil				Total
	Bikaner	Kolāyat	Lūnkaransar	Naukha	
1. Ploughs					
(i) Wooden	11,291	12,207	10,586	16,823	50,907
(ii) Iron	2	15	55	2	74
2. Carts	3,067	2,687	229	5,031	11,014
3. <i>Ghanis</i>	31	28	26	41	126
4. Oil Engines with pumps for irrigation purposes	—	1	4	2	7
5. Tractors	3	2	2	—	7
6. Electric pumps for irrigation purposes	4	—	1	—	5

Seeds

The Jakharana *bajra* seed is suitable for this area. During the year 1965-66, 461 maunds of improved seeds of *Bajra*, 60 maunds of wheat, 200 maunds of *Moth* and 13½ lbs. of vegetables were distributed through the Agriculture Department. There are three seed stores one each at the Bikaner, Lūnkaransar and Naukha but there is no seed multiplication farm in the district.

1. Report of the Livestock Census of Rājasthān, 1966, pp. 236-37

ANIMAL HUSBANDRY AND FISHERIES

Animal Husbandry

FODDER—In the absence of adequate irrigation facilities, people in the district have to depend on the rainfall even for fodder needs of their animals. Local grasses which are highly nutritious spring up in the district even when a small rainfall comes and then there is no scarcity of fodder. Besides, spontaneous growth of trees and bushes acts as 'green meat' or fodder. Famine, however, is a frequent feature as rains do fail in some part of the district every now and then. During famine years, fodder has to be imported from outside. People also migrate with their cattle in search of food and fodder.

The types of grass mainly grown here for fodder purposes are : *Sawan*, *Bhaurt*, *Dhaman*, *Lenpati*, *Karbi*, *Phalgati* and *Chara* (*Moth*).

LIVESTOCK—According to 1951 Census the total number of livestock stood at 570,774 which increased to 949,024 during 1956 but fell down to 903,740 during 1961. Table given in the Appendix IV gives details of the figures relating to the years 1961 and 1966. The district is famous for the breeds of its cattle. We find here cows of Rathi and Sahiwal breeds and bullocks of the famous Nagauri extraction. The north western portion of the district, where animal husbandry constitutes the mainstay of the people, is said to contain the best sheep. Cows of Pugal are renowned for their milk.

Nagauri breed animals are also found in this district and have great stamina and surefootedness in work on medium heavy soils or in pulling heavy weights. Being leggy, they are very good and fast trotters. They are famous for their speed in the carts, and *raths* (Chariots) too. They are in demand in all parts and particularly northern States of India and fetch more price than any other breed of cattle, as they can pull heavy loads, draw water from deep wells and also because of their capacity to plough lands with heavy loamy and clay soils. The average price of a male calf of about 1½ years is approximately Rs. 1000 and that of the fully grown good bullock, about Rs 1300.

Cattle are a source of income in various ways of which the principal are, the sale of heifers, bullcalves and buffaloes and also *ghee*. Buffaloes are more valuable than cows as they yield more milk and *ghee*, but they do not thrive on brackish water. A cow, with fair

grazing, yields milk for about 100 grams of *ghee* per day for six months and a buffalo, 150 grams for eight to nine months. The young stock of cows and buffaloes (*Bachri* or *Jhoti*) are always reared. Male calves are generally kept for 3 to 4 years and then sold to travelling traders or at a fair. The buffalo male calves (*jhotas*) are also sold as beasts of burden.

The district almost holds a monopoly in the production of good camels not only in Rājasthān, but also in India. This animal, roughly called a ship of the desert, has also proved its utility in the rest of the country. In addition to its use in agricultural operations, it is employed for carrying loads in hilly areas as well. There are two varieties of camels in Rājasthān; one known as Jaisalmeri is noted for riding purposes and the other known as Bikaneri for carrying heavy loads. Local camels when compared to their counterparts elsewhere have less hair and are light in weight. This facilitates quick speed without any strain on the rider. The average weight of a fully grown camel of Jaisalmeri breed is 1200 lbs. and that of Bikaneri, 1500 lbs. Their height is 7' and 8½' respectively. They cover 30 and 25 miles per day respectively. Camel wool is used in the manufacture of strings and it gives a fair return. The skin is used in making jars and big bottles for keeping *ghee* and oil. The camels also serve as carriers of grain and water.

A Camel Development Scheme was started in the district in 1959 with the aid of Indian Council of Agricultural Research. To improve their breed a camel breeding farm has been established at Jorbir, about 10 km. from Bikaner, and improved Bikaneri camels are kept to cater to the needs. The purpose of this scheme is to produce nucleus herd of high pedigree Bikaneri camels for bringing an improvement in the existing stock.

Marwari goats of Bikaner are known for their good yield of milk and mutton. They are generally black in colour. They are very heavy with a dressed carcase of 50 lbs. on an average. Their hair is also a valuable commodity as it is spun into coarse thread, yarn or string and is mostly used for making sacks for carrying various goods on donkeys and camels.

Sheep play a very important role in the economy of the district. Sheep rearing is one of the principal occupations of the people. Most of them are bred for dual purpose i.e. mutton and wool. The heaviest type is called *Conadi* and is famous for its high yield of mutton and good milk, rich in butter contents upto 10 per cent. *Ghee* (fat) is manufactured from its milk and is sold in local markets.

Magra breed of sheep are found all over the district. They are generally well built, having light brown patches round their eyes and medium sized twisted ears and medium tail. The body weight of ewes is 50 to 65 lbs. and that of rams from 70 to 75 lbs. The wool grown per year (sheep washed before shearing) is 3 to 5 lbs., and number of clips is 3. The quality of wool is of medium and coarse grades. The sheep of Pugal is said to be the best in the district. The shepherds are either nomadic or very mobile and move from place to place in search of water and fodder. It is only in monsoon that they do not move when plenty of grass and green vegetation is found near home.

There is a Government Sheep Breeding Farm at Koramdesar for breeding Magra rams and a Woollen Cottage Industries Institute for processing the wool. There are 11 sheep and wool extension centres in the district situated at Bikaner, Napāsar, Jāmsar (Panchun), Kolāyat, Lunkaransar, Mahājan, Naukha, Gariāla, Visalpur, Pugal and Sattāsar. Bikaner, Napāsar, Kolāyat, Lunkaransar and Naukha centres were established during the year 1954-55, while Mahājan, Jāmsar (Panchun), Gariāla, Visalpur, Pugal and Sattāsar centres were set up during the year 1962-63. Attempts are being made to improve the breed of sheep by improving Merino rams from Australia.

There is one Regional Sheep Research Station for Chokla breed of sheep at Bikaner where the strength of the livestock at the end of 1965-66 was 592. The main programme of the Research Institute is (i) to improve Chokla sheep apparel wool by selective breeding, (ii) to supply farm breeding stocks to selected village flocks and organise controlled breeding directed towards improvement of wool quality, (iii) to study fertility and different characteristics of Chokla sheep, (iv) to study important problems of sheep husbandry including nutrition in relation to wool production in the existing conditions around the Farm. During the year 1962-63, 654,380 kg. of wool was produced from the two clips from 1,068 animals.

There is also a Wool Analysis Laboratory at Bikaner (i) to classify wool grown by different breeds of sheep into different grades and types, (ii) to prepare their standard samples for helping in visual grading in the field, (iii) to study breeds and (iv) to evaluate the commercial manufactures of graded work of different breeds, their definition and relation to fibre characteristics.

During the year 1952-63 a sum of Rs. 44,000 was sanctioned

by the Government for boring of wells and construction of tube wells and overhead tank at the Sheep Breeding Farm at Koramdesar. 24,636 bales of wool were graded at Bikaner centre during 1956 which was 42.6 per cent of the total wool graded in that year. Bikaneri is the trade name of this wool.

Sheep and Wool Extensions and Sheep and Wool Development Schemes sponsored by the Indian Council of Agricultural Research are under operation in Bikaner Panchayat Samiti. The main purposes of these schemes are (i) to bring about an increase in the overall production of wool by way of improving quality and quantity of wool produced, (ii) to secure better percentage of new born lambs of improved varieties obtained through controlled breeding, (iii) to rear better types of sheep, (iv) to maintain Ram lambs at the Centres for classification into categories according to their performance for general distribution among flock masters, (v) to improve local methods and applications practised by flock masters/owners in sheep farming and replacement with new scientific methods equipped with current knowledge in sheep husbandry, and (vi) to eliminate the possible losses due to spread of epidemics in sheep.

For an all-round development of the animal husbandry and to remove the shortage of improved bulls, a Key Village Scheme was introduced in this district from 1st July 1958. Under this scheme six Key Village Units situated at Bīchhwāl, Rirmalsar, Napāsar, Gangashahr, Barsinghsar and Palāna are functioning. Some of the important achievements under this scheme are indicated below :—

Items	1961-62	1962-63	1963-64	1964-65	1965-66
1. Artificial Inseminations done :					
Cows	194	207	644	728	826
Buffaloes	67	—	—	—	—
2. Natural services done :					
Cows	577	366	499	781	879
Buffaloes	260	268	456	478	429
3. Animals tested :					
Cows	20	270	305	227	252
Buffaloes	59	73	—	—	—
4. Calves born :					
I. By artificial insemination :					
Cows	15	67	119	195	309
Buffaloes	—	—	—	—	—
II. By natural services :					
Cows	84	62	193	126	250
Buffaloes	64	44	105	143	251
5. Animals castrated :	908	883	536	308	1,014

Besides the above, a Post-graduate College of Veterinary and Animal Husbandry is also functioning at Bikaner under the University of Udaipur. Under this college a poultry farm is being maintained.

POULTRY DEVELOPMENT—During the year 1965-66 subsidies and loans were given for the development of poultry. A subsidy of Rs. 155 and loan of Rs. 500 each were given to poultry breeding farms. About 5,000 chicken were distributed to the poultry breeders by the Veterinary College, Bikaner at subsidised rates.

Fisheries

There has been no significant development of fisheries in the district due to paucity of water and obhorance of people in general to killing and the eating of flesh. In Panchayat Samiti, Kolāyat, the soil is fit for tanks to hold water round the year and fisheries can be developed but for the apathy of people on religious and sentimental grounds.

Artificial Insemination

There is no artificial insemination centre in Bikaner except the Key Village Centres. There were nine veterinary hospitals and dispensaries in Bikaner as follows :

1. Veterinary Hospital, Bikaner (functioning from time of integration)
2. „ „ Lunkaransar (established in 1954-55)
3. „ „ Naukha (established in 1954-55)
4. „ „ Mahājan (established in 1962-63)
5. „ „ Kolāyat (established in 1955-56)
6. „ „ Dispensary, Deshnoke (established in 1965-66)
7. Multipurpose Dispensary, Bikaner
8. Mobile Veterinary Dispensary, Bikaner
9. Veterinary Hospital R.A.C., Bikaner (established in 1964-65)

Animal Diseases

The area being sandy and climate dry, the possibilities of cattle diseases are remote. During the rainy season, however, foot and mouth diseases do make their appearance. These are readily treated with little loss of life. Seasonal diseases like Hamorrhagic Septicaemia are reported before the advent of rains, and if the animals are not vaccinated earlier the chances of survival are bleak. Obvious symptoms of this disease are swelling in the throat and chest

accompanied by fever which incapacitates the victim to eat anything resulting in death. The mortality on this account is 80 to 90 per cent. Another disease known as Black Quarter spreads in the winter mostly among the young stocks.

Goshalas

There are five *Goshalas* functioning in the district. These are situated at Bikaner, Naukha, Deshnoke, Napāsar and Bhinasar. The *Goshala* at Bikaner has been functioning under the Animal Husbandry Department under the *Goshala* Development Scheme since 1960-61. This institute was maintaining a herd of 116 cattle at the end of 1965-66. During this period the *Goshala* supplied milk to the extent of 14,076 kg. to the public. The name of the other *Goshalas* functioning in Bikaner district are as follows :

1. Shri Ganga Jubile *Gaushala*, Bikaner
2. Shri Ganga *Gaushala*, Naukha
3. Shri Murli Manohar *Gaushala*, Bhinasar
4. Shri *Gaushala*, Napāsar
5. Shri *Gaushala*, Deshnoke

There is a *Gosadan* at Koramdesar at a distance of 24 km. from Bikaner city. 380 animals were being maintained in this institution at the close of the year 1965-66 and a sum of Rs. 13,646 was paid to it as grant-in-aid by the Department during this year. Useless and uneconomical animals are kept and fed here on compassionate grounds.

Cattle Fairs

Bikaner claims the distinction of being the home of famous breeds of sheep, goats and camels in Rājasthān. Nali in sheep, Marwari in goats and Bikaneri in camels have attained an all India reputation. To popularise the above breeds a number of fairs are held every year under the aegis of Kolāyat, Lunkaransar and Naukha Panchayat Samitis. The details of these fairs are given in Appendix V based on the fairs held during 1958-59.

FAMINES

Famines and Scarcity conditions are fairly frequent in the district which has to depend for production of food-grains and fodder (and even for drinking water), on erratic rainfall, there being practically no other means of irrigation. A general famine may occur

Agriculture and Irrigation

once in ten years but local scarcity is a common feature at least every four years. The distress caused thereby is relieved only by temporary migration of the live-stock.

Famines—Early visitations¹

The first severe famine of which we have records in the history of Bikaner occurred in 1755-56 A. D. when Maharaja Gaj Singh was the ruler of the State. It is said that free distribution of food was organised by the State and employment was offered to many people in the construction of the city-wall. The next famine occurred during Maharaja Ratan Singh's reign in 1834 followed by one in 1849 and again in 1860 but no details of the relief measures adopted are available in respect of these famines.

Famine of 1868-69²

The district was severely hit again by a famine in 1868-69 causing deep distress to the people. Scarcity conditions took hold early in October 1868 when people began clamouring for food. Some philanthropists took steps to relieve distress by free distribution of cooked food as also by opening small relief centres. The State had no plans to meet the situation except the establishment of a free food distribution centre (*sada-brat*) at the Capital town of Bikaner. The other relief work started was digging of a small tank giving employment to a few people for a short time. This too had to be closed for want of funds. The State's directive remitting transit duties on grains, was disregarded and officials collected land revenue by imposing heavy fines and employing other coercive methods. This resulted in the perilous loss of more than one third of the population and bulk of livestock. The price of grain rose gradually to six seers a rupee, and even water became a scarce commodity.

Famine of 1891-92³

The next visitation of famine was in 1891-92 which affected 15,340 sq. miles in the north, where the *Kharif* crop had failed for the eighth year in succession. Because of the migratory habit of the people, relief measures promptly taken by the State, a good wheat crop in the spring of 1892 and other facilities afforded by the railways,

1. Erskine, Major K. D., *Rajputāna Gazetteer* Vol. III-A, *The Western Rajputāna States and Bikaner Agency*, 1909, p. 354.
2. *ibid.*, p. 354.
3. *ibid.*, p. 355.

the impact of draught conditions on the lives of the people was not so severe. Relief works, like small tanks, repairs to wells and earth work for the railway track were started in September 1891 and closed in August 1892, giving employment to 11,51,000 and gratuitous relief to 4,04,088 people. About half the cattle, however, perished as grass was hardly available, and at the beginning of 1892, it was selling at thirty five seers for a rupee. Three times the number of cattle in ordinary years had migrated but the majority returned before the end of 1892. Prices of wheat, *bajra* and *moth* rose to eight or nine seers per rupee. Various relief measures together with the remission of land revenue accounted for an expenditure of more than Rs. 3.3 lakhs; besides advances to agriculturists and suspensions of land revenue amounted to Rs. 53,000.

Famine of 1896-1971¹

The year 1896 witnessed an extensive failure of the *Kharif* crop affecting more than three-fourth of the then Bikaner State. The relief works consisted mainly of digging of the Ghaggar Canal and the railway track giving employment to nearly 27,50,000 units* while about 8,14,000 units* were relieved gratuitously. The expenditure incurred on these measures exceeded Rs. 3.5 lakhs and suspensions of land revenue and *takavi* advances were also granted. Prices of foodgrains ranged from seven to nine seers per rupee. Fodder was very scarce, and it was estimated that one third of the cattle in the affected tracts in the south and east and about one fifth elsewhere had perished.

Famine of 1899-1900²

Another severe famine occurred in 1899-1900. Average rainfall for the then whole State of Bikaner in that year was 3½ inches; Bikaner city receiving 1.14 inches only. Crops failed miserably, but the timely help rendered by the then State authorities of Bikaner and well thought out relief measures personally supervised by the Maharaja, enabled the people to withstand the calamity boldly. Relief works and famine camps were started in August 1899 and continued till October, 1900. Relief works were so planned as not only to provide immediate relief to the famine stricken but also to bring long range profits to the State. Of the 93,48,715 persons engaged on works, more than eighty per cent were actual workers.

1. Erskine, Major K. D., *Rājputāna Gazetteer*, Vol. III-A, *The Western Rajputana States and Bikaner Agency*, 1909, p. 355.

2. *Ibid.*, p. 355.

* A unit would consist of labour of one man per day.

Four poor houses were set up, two at Bikaner and one each at Churu and Rajgarh. The poor house at Bikaner was state controlled and the latter two were managed by local philanthropists. There was no system of gratuitous relief to people at their own houses, but distressed *parda-nashin* women were fed at different camps and accommodated in huts specially erected for them. About twenty-two per cent of the population emigrated, and three-fourth of the cattle were said to have died. Total expenditure on relief was more than Rs. 8.5 lakhs, of which nearly half was subscribed by the leading *Seths* or Bankers who were reputed for their philanthropy. Land revenue suspensions amounted to Rs. 4.7 lakhs and Rs. 85,300 were advanced to agriculturists. Mention may here be made of the excellent services rendered by the Imperial Service Camel Corps, which was then converted into a famine fighting unit.

As a result of successive bad years after the big famine of 1899-1900, the economic condition of people got a severe set-back necessitating considerable remissions in land revenue arrears in 1902-03. Further sizable remissions were announced in lean years of 1904-05, 1909-10, 1911-12 and 1918-19, as also on such festive occasions as birth of the Heir-Apparent and His Highness' Silver Jubilee. Total remissions thus amounted to Rs. 22,34,279 upto the end of the financial year 1935-36. Besides, many other substantial concessions were granted to the people to improve their economic condition, and bring more area under cultivation. These included abolition in interest on arrears of land revenue in *Khalsa* (State-owned as against *Jagir*) villages, payment of revenue in two half yearly instalments instead of one yearly instalment as it existed prior to 1913, facilities for taking more land on annual or four years' lease, free grants for constructing and repairing *kutchas* and *pucca* wells, tanks and bunds (reservoirs for collecting and storing rain water) and advances free of interest for a fixed period for the cultivation of *Rabi* and other profitable crops. These concessions were offered in addition to normal *taccavi* loans, the grant of which was considerably liberalised to benefit the agriculturists.

In 1915, owing to the failure of monsoon, Rs. two lakhs were given as interest free loans for one year, in addition to free grants of Rs. one lakh for the purchase of camels and cattle to the cultivators at half price. A concession of half railway freight on grass and

fodder imported for consumption in the State by the Bikaner Railway was further granted.

State grain shops were opened at Bikaner in 1918-19 and 1921. In order to restrict undue rise in prices and prevent profiteering, a scheme of co-operative sale was introduced and a grain market was built at Bikaner.

In 1920-21, earth work was started on the projected railway line between Hanumangarh and Talwara and grain compensation allowances were granted to the lower grades of State employees. *Taccavi* loans were given to the agriculturists liberally.

In later years, regular budgetary provision was made for liberal *taccavi* advances, amounting to more than Rs. 30,000 between 1930-31 and 1935-36.

Famine of 1939-40

Because of failure of rains during 1939-40, famine was declared from 20th August, 1939. The tahsil of Magra was partially affected, while the tahsils of Sadar, Surpura and Lunkaransar were generally affected.

To combat this calamity a Central Famine Officer was appointed and Famine Execution and General Committees were set up. This organisation set itself to the task of granting various relief measures. Thus usual steps like remission and suspension of land revenue were announced in affected areas, land was allotted in perennial and non-perennial irrigated areas in the colony for temporary cultivation, exempted from payment of land revenue and water and crop rates, to agriculturists coming from *Barani* areas, with grant of *taccavi* loans for purchase of seeds and agricultural implements. Relief works were opened to provide employment. Free travel facilities were offered to labourers coming to the relief works and reduction was made in freight rates on the movement of grass, fodder and cattle. Fodder Depots were opened at various places to supply fodder at cheap and fixed rates. The total expenditure incurred on relief works during the period amounted to Rs. 14,35,619. Besides, about Rs. four lakhs were distributed as *taccavi* to help the impoverished agriculturists in pursuing their vocation. Commendable efforts were also made by private institutions like *goshalas*, and philanthropic individuals to maintain cattle at their expense during this period. During the famine, inspite of all the efforts made, about 29 per cent of the cattle are reported to have perished.

Famines during recent years

The year 1963-64 witnessed an unprecedented famine in recent years. The rainfall was very scanty and sufficient water even for drinking purposes was not available, much less for cultivation of food or fodder. Whole of the district consisting of 680 villages was declared famine stricken by the State Government and the Government machinery of the district was geared up to meet the situation. Relief works were started to mitigate the distress. Arrangements were made for the import of fodder from Punjab, Uttar Pradesh, Madhya Pradesh, Bengal and Madras, besides from places within the State, and its distribution at subsidised rates through 67 fodder depots scattered in the whole of the district. The paucity of drinking water was met by giving subsidy for deepening wells in 208 villages; and where there were no wells, drinking water was transported by railway tanks and camels. In some villages, electric or diesel motors were provided for drawing water from wells. As many as 863 disabled and old persons were given subsidy at Rs. 15 each per month during the famine period. Cattle camps were also organised where assistance at Rs. 10 per cattle was given for their maintenance. Public co-operation was also sought in running such camps and 50 per cent of the total expenditure was met by the Government. Migration of cattle, however, was then inevitable and about 20,000 livestock were transported to Suratgarh Mechanised Farm in Gangānagar district, where grazing facilities were provided free of cost. To help the distressed, village relief works were started within five miles of each village and arrangements for shelter, drinking water, medical facility etc., were made so that the workers could engage themselves in relief works without difficulty. At one time, the number of persons engaged in such relief works was as high as 38,000 daily but the number was reduced on the advent of rains in July. Clothes and biscuits were distributed in the camps by the Red Cross Society. The Government distributed woollen blankets to the poor and disabled. Persons, who could not work in relief works, were distributed *Charkhas* at subsidised rates by Khadi Organisations and supply of cotton and wool also arranged. *Taccavi* loans were advanced by the Government to the tune of Rs. 25 lakhs in 1963-64 (*Samvat* year 2020) at easier terms. In all about Rs. one crore were spent on relief measures during this year.

1965-66 (*Samvat* 2022) was again a year of famine, though less severe as compared to the famine of 1963-64. Rains were not only

APPENDIX II

Area and Production of Principal Crops¹

Year	Bajra	Jowar	Wheat	Barley	Kharif Pulses	Sesamum	Rape & Mustard	Cotton
Area under Crops (Hectares)								
1956-57	1,30,130	1,508	164	-	2,11,690	7,852	51	1
1957-58	1,32,908	551	16	-	1,66,302	6,803	10	-
1958-59	1,29,956	226	-	19	1,56,358	9,317	1,542	-
1959-60	1,71,060	711	312	7	1,90,996	12,120	80	-
1960-61	1,86,812	633	49	-	1,87,653	14,164	-	-
1961-62	1,96,890	1,108	39	-	2,02,563	26,116	-	2
1962-63	1,98,297	1,088	51	2	2,05,430	12,701	9	-
1963-64	1,85,423	418	218	10	1,99,195	10,428	1	2
1964-65	2,18,576	883	215	4	2,42,954	19,912	6	-
1965-66	2,26,305	859	120	1	2,51,593	21,307	4	-
Production of Crops (Tonnes)								
1956-57	6,695	367	199	-	26,206	754	5	2
1957-58	20,182	169	11	-	12,777	827	3	-
1958-59	16,591	73	-	14	23,204	940	415	-
1959-60	29,910	217	217	3	31,518	354	21	-
1960-61	10,888	180	59	-	28,816	1,430	-	-
1961-62	16,331	286	29	-	36,742	615	-	1
1962-63	29,113	175	44	-	37,796	3,359	4	-
1963-64	831	44	101	1	11,013	82	-	1
1964-65	34,052	121	165	3	52,299	1,361	2	-
1965-66	10,146	14	79	-	19,267	382	1	-

1. Statistical Abstract, Rājasthān, yearly volumes for various years.

APPENDIX III

Physical Achievements - Agriculture Sector¹
(Provisional)

Items	Units	Years	
		1964-65	1965-66
1. Reclamation of land	Acres Hectares	8,498 3,439	40,486 16,384
2. Distribution of Ammonium Sulphate	Qtl.	2.65	6.63
3. Compost pits dug and filled	Nos.	1,401	2,236
4. Compost prepared & used	Tons Tonnes	4,357 4,427	7,544 7,665
5. Seeds distributed:			
(i) Bajra	Mds. Kg.	1,033 38,556	461 17,206
(ii) Moth	Mds. Kg.	200 7,465	200 7,465
(iii) Wheat	Mds. Kgs.	750 27,993	60 2,239
(iv) Vegetables	Lbs. Kg.	0.50 0.23	13.75 6.2
6. Improved Ploughs Distributed	Nos.	24	166
7. Rat control	Acres Hectares	33,874 13,708	54,748 22,156
8. Disinfection of seed stores	No. of times	711	354
9. Seed treatment	Mds. Kg.	16,082 6,00,250	7,496 2,79,782
10. Shady plants distributed	Nos.	2,538	2,479
11. Fruit plants distributed	Nos.	1,419	90
12. Ber trees budded	Nos.	46	123
13. Med Bundi	Acres Hectares	1,325 536	685 277
14. Kana Bundi	Acres Hectares	25,571 10,348	77,526 31,374
15. Bar Bundi	Acres Hectares	19,085 7,723	16,109 6,522
16. Stable Mulching	Acres Hectares	16,730 6,770	6,785 2,746

1. Source : Agriculture Department, Rājasthān, Jaipur.

APPENDIX IV

Livestock

Type of Animals	1961	1966
1. A. Cattle	289043	355704
(i) Males over three years	29661	33482
1. Breeding	1794	1659
2. Working	26895	31229
3. Others	972	594
(ii) Females over three years	149148	182580
1. In milk	60687	100101
2. Dry	66926	82246
3. Others	21535	233
(iii) Young stock three years and under	110234	139642
Males	51195	-
Females	59039	-
Buffaloes	38512	44743
(i) Males over 3 years	1220	1187
1. Breeding	152	149
2. Working	862	991
3. Others	206	47
(ii) Females over 3 years	22338	25595
1. In Milk	8911	13531
2. Dry	9216	11992
3. Others	4211	72
(iii) Young stock 3 years and under	14954	17961
Males	4883	-
Females	10071	-
Total Cattle and Buffaloes	327555	400447
2. Sheep	430232	533517
(i) one year and above	359261	440608
(ii) Below one year	70971	92909

Type of Animals	1961	1966
3. Goats	103664	132964
(i) one year and above	76369	91163
(ii) Below one year	27295	41801
4. Horses and Ponies	552	437
5. Mules	6	-
6. Donkeys	3308	4050
7. Camels	38360	47184
8. Pigs	63	61
Total Livestock	903740	1118660
9. Poultry	2142	12357
(i) Fowls	2111	12338
(ii) Ducks	23	19
(iii) Others	8	-

Source : *Statistical Abstract, Rājasthān, 1967* and *Report on the Livestock Census, 1961*, the Board of Revenue, Rajasthan, Ajmer.

APPEN

Cattle¹

Name of the fair	Location	Managed by	Dates on which held	Distance from the Rly. Station
1. Mahājan Cattle fair	Mahājan	Distt. Board	27.9.58 to 2.10.58	2 miles or 3 km.
2. Kolāyat Cattle fair	Kolāyat	„ „	25.11.58 to 30.11.58	$\frac{1}{2}$ mile or 0.8 km.
3. Naukha Cattle fair	Naukha	„ „	15.10.58 to 20.10.58	1 mile or 1.6 km.
4. Naukha Cattle fair	Naukha	„ „	2.2.59 to 8.2.59	1 mile or 1.6 km.
5. Kolāyat Cattle fair	Kolāyat	„ „	25.1.59 to 30.1.59	$\frac{1}{2}$ mile or 0.8 km.
6. Mahājan Cattle fair	Mahājan	„ „	19.2.59 to 25.2.59	2 miles or 3 km.

1. *A Guide to Rājasthān Cattle Fairs, 1958-59*, Department of Animal Husbandry, Rājasthān.

DIX V

Fairs

Principal species	Number of the animals brought and sold											
	Cattle		Buffaloes		Horses		Camels		Donkeys		Sheep	
	B	S	B	S	B	S	B	S	B	S	B	S
Rathi	1,300	563	200	-	10	-	300	-	-	-	40	-
Rathi & Nagauri	1,175	134	50	1	4	2	2000	133	5	2	-	-
Nagauri & Bikaneri	935	396	100	-	-	-	200	-	-	-	100	-
Rathi & Nagauri	1,070	268	25	-	5	-	100	1	-	-	-	-
Bikaneri Camels	1,05	417	25	-	5	2	100	15	-	-	-	-
Rathi	1,275	138	50	-	-	-	100	7	-	-	-	-

Note : B denotes brought
S denotes sold.

CHAPTER V INDUSTRIES

OLD TIME INDUSTRIES

Being almost entirely a desert area with negligible forest growth and little water resources, and the only agricultural produce being *Bajra* and *Moth*, Bikaner district could not boast of much industrial activity and has been, for these natural drawbacks, industrially backward, so far as agriculture-based industries are concerned. The district has, however, been famous for the production of wool; but even for its processing there were no industries in the past, except one unit which was working under the trade-name of M/s Bikaner Woollen Press, in the Capital city. Captain P. W. Powlett¹ has described the industrial activity in his days thus : "The principal manufactures are those of blankets and sweetmeats: the latter of course from imported sugar, which is worked up into a great variety of sweetmeats so superior to any produced elsewhere that large quantities are exported". According to Major K.D. Erskine,² Bikaner had been famous for the manufacture of woollen fabrics (*Lois* or woollen shawls), carpets, ivory bracelets, pottery, lacquer-ware, leathern water bags and sweetmeats. The ivory bracelets were often tinted with gold or silver while the pottery consisted chiefly of household utensils made of red clay or marl. Work in lac was confined to small articles like toys, bangles, stools and legs of beds. White sugar candy had been a famous product of Bikaner which was made of imported sugar and rainwater. The other industries consisted of weaving of coarse cotton cloth, rugs, durries, grain bags of goat hair and the manufactures of camel saddlery.

The old industries thus mainly consisted of small units producing handloom articles like durries, woollen blankets known as *Burdies* and *Lois*, handicrafts like carved building stones, wood, lacquer-wares and block printing etc. The artisans were mainly concentrated in Bikaner city, except the weavers of blankets, who were spread throughout the district though Napāsār has been famous for the skill of its weavers.

1. Powlett, Captain P.W., *Gazetteer of Bikaner State*, 1874, p. 98.

2. Erskine, Major K.D., *Rājputāna Gazetteers, Vol. III-A, The Rājputāna States and the Bikaner Agency*, 1909, p. 351.

Col. J. Tod¹ has stated, "The Bikaneris work well in iron, and have shops at the capital and all the large towns for the manufacture of sword blades, match-locks, daggers, iron lances, etc. The sword-handles, which are often inlaid with variegated steel or burnished, are in high request and exported to various parts of India. They have also expert artists in ivory, though the articles are chiefly such as are worn by females, as *Churis*, or bracelets. Coarse cotton cloth, for internal consumption was woven in considerable quantities on handlooms."

Bales of raw wool were sent out of the district mainly to big industrial towns like Bombay, Karachi and Ahmedābād for further processing and making it suitable for knitting and weaving purposes. The economic condition of the sheep breeders was far from satisfactory. The wool based industries, however, have got a fillip consequent on the encouragement of industries given by the Government during recent years.

POWER

Power is the pre-requisite for the development of all industries. The first electric light was switched on in Bikaner as early as 1886. In 1902, a Power House on modern lines was erected near the City Railway Station for the purpose of supplying electric power to the various State buildings and other State institutions. The demand, however, quickly outgrew the capacity of the plant installed, and a new Power House was built in a more central and suitable locality in 1906. At that time, it was one of the most up-to-date plants in India, and one of the first to introduce the new universal system of light tension alternating current. Since then, the plant has been extended from time to time, to cope with the ever increasing demand for electric current. It is interesting to note that the whole power used to be generated from lignite fuel mined at Palāna. During the years² 1939-40, 1940-41 and 1941-42 the number of connections was 4,465, 4,579 and 4,842 and the electricity generated was 1,03,47,644, 1,06,82,130 and 1,20,95,328 units respectively.

Prior to the supply of power from Bhākhra Nāngal Grid in 1962, availability of power in the district was limited to Bikaner city and the adjoining suburbs, as it was generated only from a

1. J. Tod, Lieut. Col. J., *Annals and Antiquities of Rājasthān* Vol. II, Bombay, 1920, p. 115.

2. *Administration Report of the Bikaner State*, 1939-40 to 1941-42, p. 95.

combined steam and diesel power house located at Bikaner. The installed capacity of this Power House was 8,500 k.w. by steam and 1,108 k.w. by diesel during the year 1965-66. At present it is being partly utilised.

The main source of electricity now in the district is Bhākhra Hydel Power. This was partly brought in the district first in 1959 and fully in May 1962. The existing transformer capacity at Bikaner Grid sub-station is $2 \times 4,000$ k.v.a. As more and more power became available from the Bhākhra Grid, generation from the local steam and diesel power houses has been progressively declining. Thus in 1961-62 as against 10 million k.w. of power generated locally, Bhākhra Grid supplied only 4.8 million k.w. In 1965-66, however, local generation fell to a bare 0.536 million k.w. against 17.80 million k.w. obtained from Bhākhra.

The total number of connections as on 31st March, 1967, in Bikaner district, stood as follows :

1. Agricultural	10
2. Industrial	355
3. Domestic	16,805
4. Water Works	95
5. Street-lighting	36
6. Others	38
7. Commercial	2,260

There is one 66 k. v. Grid sub-station having transformers of 2×4 MVA-66/11 k. v. to bring and regulate the supply of hydro-electricity in the district. The Thermal Station is at present kept as a stand-by to feed part of Bikaner city in the case of failure of Bhākhra supply. Its generating capacity is 2,000 k.w.

Rural Electrification

Rural electrification started in the district in the year 1961. The total power supplied for the purpose is about 700 k.w. The number of towns and villages electrified in the district as on 31st March, 1966 was 47; the names of these are given in the Appendix I

MINERALS

Bikaner is fairly rich in mineral wealth. The important minerals available in the district are as follows :

Non-metallic

Gypsum—The gypsum deposits of Bikaner are well known and cater to the requirements of cement and fertiliser industries in the country. From times immemorial, it has also been used for plastering buildings. The important gypsum occurrences in Bikaner district are at Jāmsar, Dhīrera, Dulmera and Lunkaransar; some of these are discussed below :

Jāmsar—The gypsum deposit at Jāmsar is one of the biggest and the best deposits of gypsum in India. It is located near village Jāmsar. A railway station of the same name is situated within the area covered by the deposit, which extends to about 5.6 kilometres in the east-west and about 1.6 km. in the north-south directions. The mineral which is of very good quality occurs in almost horizontal beds of varying degrees purity and thickness, intercalated with slightly unconsolidated clay and sand beds. This deposit is held at present under a mining lease by M/s Bikaner Gypsum Ltd., a Public Limited Company, in which Government of Rājasthān is also a partner. The mines are fully mechanised and the mining is carried out by open cast method. On an average, the deposit is estimated to contain reserves of 30 million tons of good quality gypsum.

Dhīrera—The deposit is about 1,000 ft. down south of Dhīrera Railway Station on the Bikaner-Bhatinda line of the Northern Railway. The area is under a mining lease to M/s Bikaner Gypsum Limited. The estimated reserve is about 1.33 million tons.

The deposits of gypsum also occur at the following places :

Jaimalsar—The approximate reserve of gypsum is about 2.15 lakh tons.

Kanvni—The approximate reserve here is about 6.6 lakh tons.

Bharu—The estimated reserve is nearly 5.83 lakh tons.

Makrasar—The estimated reserve is approximately 5 lakh tons.

Dholera—This deposit has a reserve of approximately 5 lakh tons.

A crystalline variety of gypsum i.e. Salenite occurs at Lunkaran-sar which is a railway station of the Northern Railway (Bikaner-Bhatinda line). These nearly 3 ft. thick deposits extend over about 2.6 sq. km. The salenite bearing earth contains 60 per cent of salenite. The area is under a mining lease to M/s Bikaner Gypsum Ltd.

Bihnok—The deposit is situated near the place of the same name.

Madhogarh—It has reserves of gypsum estimated at 15,000 tons.

Gypsum is mainly consumed by the fertiliser factory at Sindri, for the manufacture of artificial manure, and by the cement factories of the country. Besides, Gypsum is also used by the textile industry and the pottery factories of the country. A small quantity is also used by the local consumers of Bikaner for the manufacture of wall plaster.

WHITE CLAY—The deposits of white clay mainly lie to the north-west of village Marh. The nearest Railway Station is Kolāyat. A number of mining leases for white clay (fire clay) have been granted to various private parties. The mines are located at Marh, Kotri, Indāka-Bāla and Chāndi. The clay of the area is greyish white to white in colour, soft and soapy to touch. It is not gritty and possesses good plasticity. The mineral is worked by manual labour and by open cast method.

The chief uses of white clay lie in the manufacture of pottery, porcelain and fire bricks. It is also used in the paper, textile, rubber and paints industries.

FULLERS' EARTH—Fullers' Earth is a variety of clay that has high capacity for absorbing basic colours and can remove these colours from their solutions in animal, vegetable and mineral oils, as well as some other liquids, especially water. The local name of the mineral is *Multani Mitti*. It is found in the vast area near village Marh of tahsil Kolāyat, and in Palāna, where it occurs at a depth of about 70 ft. The deposit near Marh has been given under a mining lease to a private party and the mineral is mined by open cast method.

The mineral is used for refining of mineral and vegetable oils and also by the textile industry. It is also used as a substitute for soap in the rural areas of Punjab, Uttar Pradesh and Rājasthān.

YELLOW OCHRE—Yellow ochre is found near Jogīra tank beyond Marh village of tahsil Kolāyat and near Bikaner in Kismidesar area. The deposits are under mining lease to private parties. The mines are worked by open cast method through manual labour only.

This mineral is used for the manufacture of distempers and colours and is consumed locally.

GLASS SAND—Glass sand of good quality, is found in village Marh. The occurrence of glass sand is along the bank of nullah for nearly 0.8 km. and reserves are roughly estimated at 14 million tons. The area has been given under a mining lease to a private party. The mines are worked by open cast method, employing manual labour only. The sand is used for the manufacture of sheet glass, bottles and containers.

Fuel

LIGNITE (BROWN COAL)—The only known deposit of coal (Lignite) in Rājasthān exists near Palāna in Bikaner district and is being worked by the Department of Mines and Geology, Rājasthān. The average annual production is about 30,000 tons. The coal or Lignite of a dark brown colour was discovered in 1896 while sinking a well at Palāna, south of the city of Bikaner. On an analysis made in the Geological Survey Laboratory, following results were obtained : Moisture 8.20 per cent, Volatile matter 42.72 per cent, Ash 9.80 per cent, thus indicating a fuel that would burn rapidly on account of large amount of volatile matter, but would be somewhat deficient in thermal power. Operations were started in 1898 and the Colliery was connected by a rail link in 1899. The seam is 20 feet thick, 250 ft. below the surface and 50 feet above the water level. More than two million tons of coal are estimated to exist and the deposit has shown signs of exhaustion only in one direction. The extraction has grown steadily year by year. The following table indicates the annual out put :

Year	out put in tons
1898	511
1899	4,249
1900	9,250
1901	12,094
1902	16,503
1903	21,764
1904	45,078
1905	42,964
1906	32,372
1907	28,062
1923-24	21,000
1924-25	26,472
1939-40	39,723
1940-41	42,837
1941-42	47,070
1944-45	43,069
1945-46	18,291
1946-47	61,126

During 1907, the Colliery gave employment to about 230 labourers mainly Jats, Chammars (or Dheds) and Thoris, and the daily wages ranged between six and seven annas or 37 and 44 paise.

The mineral is, however, of inferior quality disintegrating rapidly and becoming very friable when exposed to the atmosphere. It is consequently not well fitted for use in locomotives, as the small fragments and dust are liable to choke the boiler tubes. So far, the chief use of Lignite has been as a fuel in Power Houses and kilns. It is also suitable for any stationary boiler and most serviceable as a pulverised fuel.

Building Materials

SAND STONE—The sand stone quarries are situated in Dulmera which is a Railway Station on Bikaner-Bhatinda line. The quarries are situated just near the Railway Station. The existing quarries cover an area of about 12 lakh sq. ft. The colour is fine red-brown and the stone is of good quality. It is used for building purposes. The entire sand stone for Bikaner city buildings is said to have been obtained from these quarries.

The quarrying is done by manual labour only and the methods employed are still primitive. Besides being consumed locally, the stone is sent to Bhatinda and other places in Punjab. It used to be sent to Bahawalpur also before partition.

LIME STONE—The deposits of lime stone occur near village Dawa Silva of tahsil Naukha. They are exposed at four hillocks making a continuous belt extending over 6·4 km., near village Dawa Silva (Bandra). The quality of the lime stone is highly dolomite.

BAJRI OR GRIT—This is quite an important building material which is elastic rock consisting of medium sized grains of silica and may be described as grit. The chief development of this grit is at Gangāshahr, Gharisar and Sheo-Bari. Almost due south of the city of Bikaner, there is a vast area of *Bajri Kankar*, from the west of Pancha Mukha Hanuman temple upto Gangāshahr Ghati. The quality of *Bajri* is quite good and the deposit is considerably large.

KANKAR—A good deposit of *Kankar* is found at Darbari Nal and Gharisar. The *Kankar* is used locally for lime burning as well as for ballast.

Metallic Minerals

COPPER—The only metallic mineral found in Bikaner is copper. Tod¹ mentioned about the existence of two mines, one at Biramsar and another at Bidasar (both in the south of Bikaner) and wrote that the former did not repay the expense of working, while the latter having been worked for nearly thirty years, was almost exhausted. According to the local chronicles the mine at Bidasar was discovered in 1753 and was never a paying concern owing to the absence of proper appliances for keeping down the water.

LARGE SCALE INDUSTRIES

Glass sand found in village Marh is of a very good quality and most useful for manufacture of glass ware. There had been only one large scale factory in the district for the manufacture of glass articles which was first started at Bikaner in 1930 but closed down in 1931-32. It was revived in July 1945 and started manufacturing glass with a capital investment of Rs. 8 lakhs providing employment to 800 persons.

1. Tod, Lieut-Col. James, *Annals and Antiquities of Rājasthān*, Vol. II, p. 1154.

The production of this unit was worth Rs. 4,000 per day. The unit worked only for a couple of years and was closed down.¹

SMALL SCALE INDUSTRIES

Pottery

Attracted by the deposits of china clay in Kolāyat one unit for the manufacture of pottery and electrical insulators has recently come up at Bikaner. It started its production in 1967-68. The total capital outlay is about Rs. 6 lakhs and it employs about 70 workers.

Steel Processing

The following are the important steel processing factories working in the district.

1. **MUNDHRA METAL WORKS**—This is situated in the old Industrial Area. The important products are hole carvings, tanks, trolleys and cast brass articles. These products find market throughout Rājasthān. The production per annum varies from Rs. 1 lakh to Rs. 1.5 lakh worth of goods. The factory has acquired its own building in the Industrial Area. It employs 15 to 20 workers per day and the capital investment is about Rs. 2 lakhs.

2. **M/s AHMUD BUX JEHURDEEN**—They manufacture steel furniture, conduit pipes, almirahs and articles like trusses etc. The unit is equipped with a lathe, a welding set and a power drill, pipe drawing line and hard tools, and is run by power.

3. **BHARAT METAL IRON WORKS**—It is a re-rolling mill which manufactures round bars and flat iron. The unit has got furnaces and ten sets of rollers. The capital invested is about Rs. one lakh, besides another Rs. one lakh of working capital. Electric power of 100 H.P. is used.

1. A new chapter in industrial development of Bikaner was begun when the Minister for State Enterprises, Rājasthān inaugurated a Woollen Mill in Public Sector on 11.4.1968. This unit comprises of 1200 spindles and carries a capital investment of Rs. 61.5 lakhs. It is expected that, running in two shifts, the mill will manufacture about 50,000 kg. of woollen yarn for hosiery and carpets every year, which is likely to bring in a revenue of Rs. 75 lakhs including foreign exchange. The net income is expected to be about Rs. 5 lakhs per annum.

Besides, there are a number of units which manufacture steel furniture and cabinets. The total employment offered by all the above units vary from 400 to 500 persons per day and their daily production is worth Rs. 20,000 to Rs. 25,000.

Wool Based Industries

Bikaneri wool has been rated very high for manufacture of carpets. There were 42 wool baling, pressing and wool cleaning units in Bikaner district registered, till 31st December, 1966, under the Factories Act, and employing 1671 workers. Besides, there was a Government Wool Production Centre at Bikaner, engaged in wool carding, spinning and finishing. Three woollen mills were also registered in the district.

For the last few years, due to improvement in the standard of living of the middle class people in the country, use of carpets has come into fashion and consequently, Bikaneri wool has gained considerable ground in the Indian markets.

The following small scale weaving and spinning units working at Bikaner deserve particular mention:

1. Rājasthān Khadi Gram-Udyog Board Ooni Finishing Plant.
2. The Advance Woollen Mills (Pv.) Ltd., Industrial Area.
3. Bikaner Woollen Mills, Industrial Area.
4. Rājasthān Hosiery Mills, Gajner Road.
5. Rājasthān Woollen Mills, Jasarasar Gate.
6. The Challani Woollen Mills.
7. The Modern Woollen Mills.
8. Paras Hosiery Works.

Besides, there are a number of cottage units which employ mostly women labour for cleaning the raw wool. The wages of the labour engaged in these units vary from Rs. 1.25 to Rs. 1.50 per day as against Rs. 3 to Rs. 5 paid in other units.

Mineral based Industries

There are six plaster of Paris manufacturing units, out of which three are located in the Industrial Estate at Bikaner and the remaining ones in the City. The plaster of Paris manufactured by them is of

building grade and finds ready market in Bombay, Ahmedabad, Delhi and Calcutta, in addition to the local markets within the State. One unit viz. Satya Raj & Co. has been striving to manufacture surgical plaster also. The yellow and red ochre is manufactured by two units. Only four units have installed pulverisers and are equipped with suitable furnaces. The other units are working with disintegrators, grinders and smaller furnaces. The capital investment of each of these units varies from Rs. 20,000 to Rs. 40,000. As regards the raw materials, Gypsum is obtained from Jāmsar and Ochre from Kolāyat tahsil.

There are five tiles manufacturing units, three at Bikaner and one each at Napāsar and Naukha. Tiles are used for flooring purposes both coloured and decorative. The capital investment of these units varies from Rs. 50,000 to Rs. 1,00,000 and production from 20 to 50 tonnes per month. About 60 persons find employment in these units and the wages paid vary from Rs. 2 to Rs. 5 per day.

Printing Presses

There were 22 registered Printing Presses in the district at the end of December 1966. One of these was the Government Press at Bikaner, which is equipped with 15 printing machines out of which 4 are automatic. About 75 persons are employed in this press. In other presses the employment potential is less than 10 persons and wages paid range from Rs. 3 to Rs. 5 per day.

Cold Storage and Ice Factories

There is one Cold Storage unit at Bikaner with a capacity of 650 tons. The items stored are mostly potatoes, and some other vegetables and fruits. There are two ice factories in the city, besides a number of ice candy factories, which prepare good type of ice candies, with the abundant quantity of milk available in Bikaner.

Chemical Industries

1. **PLASTIC & CELLULOID INDUSTRIES**—There are five plastic articles manufacturing units in Bikaner city, out of which three manufacture bangles and the remaining two Polythene bags, automobile tapes and other sundry articles. These articles find market throughout the country. The labour employed varies from 8 to 15 persons, and the wages paid from Rs. 2 to Rs. 5 per head per day.

2. **HAIR OIL, INK, WASHING SOAP, AGARBATTI, CANDLE, PAN MASALLA, TOBACCO AND SWEET SUPARI MAKING UNITS**—These units number 20 and work as cottage industries using no power. Hired

labour is employed and the raw material is obtained from outside Rājasthān, and in some cases imported even from abroad. Both female and male labour is employed on daily and piece wage basis.

3. **GUAR GUM MANUFACTURING UNIT**—There is only one *Guar* Gum manufacturing factory viz. M/s Satya Raj & Co., Bikaner. It is equipped with grinding machines, boilers, driers etc. and is electrically operated. It manufactures and supplies both *Guar* splits and finished gum to the textile factories in the country. The unit is trying to export the finished gum outside the country.

4. **AYURVEDIC PHARMACIES**—There are seven Ayurvedic pharmacies working in the district; Mohatta Rasayan Shala, Bikaner, is the largest of all these. This factory is equipped with grinders and furnaces and is electrically operated. It gives employment to 33 persons per day.

5. **DISTILLED WATER AND BATTERY ACID UNITS**—There are two units for the manufacture of Distilled water which is used in the automobile batteries. These are not mechanically operated except for bottling.

Electronic Industries

1. There are two radio manufacturing units in Bikaner out of which one is situated in the Industrial Estate at Bikaner, and manufactures radio cabinets and complete sets of transistors and radios. The average production per month is about 100 sets, and is marketed mostly outside Rājasthān, in South India and Saurashtra. The factory also manufactures some radio parts like coils and transformers which are sold to other units. The unit employs 10 to 15 persons per day and wages paid per day vary from Rs. 3 to Rs. 5 per head.

2. There is one Electric line tester and Ball point pencil manufacturing unit located in the Industrial Estate, Bikaner, which employs 4 to 5 persons per day on daily wages of Rs. 2 to Rs. 3.

Machine and Cycle Industries

There is one machine manufacturing unit situated, under the name and style of Pradeep Industries, in the Industrial Estate, Bikaner. They manufacture woollen carding machines and power presses and employ about 20 persons. The unit is well equipped with a foundry and a workshop.

One unit viz. R.C.A. Industries, Bikaner manufactures conduit pipes and steel furniture etc. This unit is well equipped and five persons are employed on piece wage basis.

Another unit situated in the Industrial Estate at Bikaner viz. Hukum Engineering Works, has a well equipped workshop and manufactures automobile parts, machines, nuts and bolts and executes odd jobs to order. It employs about 15 persons on piece wages.

One unit located in the Industrial area at Bikaner is engaged in the manufacture of wire nettings. It works on hand operated pit looms and employs about six to eight persons on piece wages.

Food Industries

There are three mechanised biscuits and confectionary making factories in Bikaner out of which one is located in the Industrial Estate; one factory is solely manufacturing biscuits and its daily production is about 100 kg. The other factory manufactures sweets and lemon drops etc.

Oil & Dal Mills

There are five oil mills in the district one each at Naukha, Gangāshahr and Deshnok, and two at Bikaner. Besides four *Dal* mills, two each at Bikaner and Naukha, are also working.

Brass Utensils

There are about 35 families of *Thatheras* in Bikaner who manufacture brass utensils. Their annual production, valued between Rs. 75,000 and Rs. 1,00,000, is also exported outside Rājasthān.

Miscellaneous Industries

There are 11 saw mills and wooden furniture making units. One unit manufactures wooden casings. The labour employed is according to the quantum of work in hand and the wages vary from Rs. 2 to Rs. 4 per day.

There are two power loom societies one each at Gajner and Napāsar. Loans for the purchase of ten power looms and working capital of Rs. 10,000 each were advanced to three units by the Industries Department.

There is one Gadia Lohar Co-operative Society at Bikaner. It has a workshop equipped with a lathe, a drill, a cutter and a power

grinder in addition to hand tools. At present, this is lying defunct due to organisational reasons.

At the end of 1965, there were 95 registered private factories with a licenced maximum employment of 2221 workers, four Government factories with 1563 workers' licensed employment and one factory under Local Fund ownership with 287 workers, in the district. The names of these are given in Appendix II.

COTTAGE INDUSTRIES

Hand-spinning and hand-weaving (including hand looms) both of cotton and woollen textiles, and leather tanning constitute the main type of cottage industries spread all over in villages and towns of Bikaner district.

Hand Spinning & Weaving

There are about 25,000¹ families throughout the district who are engaged in the production of cotton and woollen cloth including carding and spinning of the basic material. Woollen blankets, shawls and all types of other cotton and woollen fabrics in good designs and texture are being manufactured by the weavers of this area. Superior qualities of *Lois* are manufactured at Napāsar and it is one of those items which can attract a very good market outside. About 25 per cent of the weavers of *Khadi* and handloom (cotton and woollen) cloth have organised themselves into co-operative societies.

Khadi Mandir, Khadi Gramodyog Pratishthan and Khadi Ooni Grah Udyog are the most important organisations in Bikaner whose aim is to encourage the above type of cottage industries by purchasing their products, and also by manufacturing *Khadi* and hand spun and hand woven blankets. They are sponsored by the Khadi and Village Industries Board of India.

Leather tanning and manufacture of leather goods are the other main cottage industries of the district. About 15,000 families earn their livelihood out of this industry. As a result of continuous efforts of the State Industries Department about 35 per cent of them have started taking to improved tanning methods.

Steel Fabricators

There are about 75 *Luhar* families in Bikaner having their own

1. Nigam, B.L., *Industrial Potentialities and Development in Bikaner*, 1961, p. 18.

small workshops. Some of them also use power and do gas welding. All of them manufacture all sorts of household articles and iron utensils. A few of them also manufacture steel furniture viz. almirahs and buckets, boxes, *kothis*, iron gates and trusses etc.

ARTS & CRAFTS

The main handicrafts of this area are dyeing and printing (*Rangai* and *Chhapai*) of cloth, embroidery, manufacture of *Lois*, lacquer-ware, lac bangles and wooden toys.

Dyeing & Printing

There are about 200 families of dyers and *Chippas* in Bikaner. A few of them have formed a Co-operative Society called Kapra Rangai Chhapai Utpadak Sahkari Samiti Ltd., Bikaner. The work of dyeing and printing by this class of people is very much liked in large parts of Bikaner, Jodhpur and Jaipur divisions.

Lacquer Work

Camel hide *kuppis* of typical design with good decorative golden and other lacquer work on them are manufactured by a few artisans in Bikaner. These articles afford great attraction to the foreigners in various Emporia of Rājasthān.

Wooden Toys

Gangaur and other wooden toys of typically Rājasthāni pattern are manufactured only by one or two families in Bikaner.

Carving

From the artistic and beautiful stone carvings visible on several old palatial buildings of Bikaner city, it can be surmised that it was a popular art in olden times, but this old craft is unfortunately no longer in existence now.

Papar of Bikaner

Papar (पापर) of Bikaner is very famous throughout the country for its good taste and digestive qualities. It is a preparation of flour of *Moong* and *Moth* kneaded in *sajji* water. *Papars* are exported in large quantities to big cities of India like, Bombay, Calcutta and Delhi. *Papars* are manufactured by widows at home to eke out their livelihood, as also by housewives in a large number of families during leisure time. There are a few organisations also at Bikaner, which prepare *Papar* and *Bari* for sale and train women in the art of their

manufacture. These are Mahila Mandal, Bikaner, Nari Shala, Bikaner, and Nari Jagriti Parishad, Bikaner,

Bhujias Manufacturing

It is a renowned product of Bikaner and is eaten as a savoury snack throughout the country. The *Bhujias* prepared here have a special taste, which it is said, is due to the dry climate and salinity in the water of the area. Their crispness, which is the reason for their popularity, is unrivalled.

Handi-Crafts Emporium

A sub-Emporium was established by the Government of Rājasthān at Bikaner in the year 1962 for the display and sale of Rājasthān Handicrafts. An exhibition of handicraft goods is organised in the month of December every year and prizes are awarded to deserving participants.

INDUSTRIAL POTENTIAL

The only industrial raw material which is available in good quantity in the district, is wool, the annual production of which is estimated at 15 to 20 lakh pounds (7 to 8 lakh kg.) There are good prospects for the further development of wool processing industry in the district. The yield of milk from cattle in the area is also abundant and the industries using milk as their basic raw material, can have a fair scope. At present, milk is sent to Delhi and Jaipur for sale through their respective Milk Supply Schemes.

There are only a few mines in the district. The Gypsum mines of Jāmsar pour their supplies to the Sindri Fertiliser Factory. Some small scale industries using Gypsum as raw material have already come up but their scope is limited. Other important mines are of fullers' earth and china-clay which can be put to industrial use. Ceramic units and activated fullers' earth industries may have a fair scope. Looking to the good number of cattle bred in the district, leather tanning units run on modern lines, also have good prospects.

Sajji plants have spontaneous growth in Pūgal area of Bikaner tahsil and an industry using this raw material can be successfully established.

The other economies available for the establishment of industries in Bikaner, are the availability of sufficient land at reasonable rates

and cheap labour. The marketing of the surplus produce also does not pose any problem as the district is well served by rail and road communication. All the tahsil headquarters are connected by rail as well as roads. Bikaner city has a direct rail and road connection with towns like Delhi, Jaipur, Jodhpur and Bhatinda etc.

STATE ASSISTANCE

The assistance rendered for industrial development by the princely State Government was marginal and usually took the form of either exemptions from payment of customs duty, grant of monopoly rights or allotment of land at concessional rates. There was no enterprise aided, managed or owned by the State in the whole of Bikaner State territory before its merger into Rajasthan.

With the commencement of the Second Five Year Plan and the declaration of Industrial policy by the Government of India, the Government have been providing various types of facilities and encouragements for the development of industries, in the form of financial assistance by grant of loans and subsidies, factory accommodation by establishing Industrial Estates, and allotment of land at concessional rates in the declared industrial areas. Licences were granted for the import of raw material, machinery and spare parts, not indigenously available. A price preference of 16 per cent was also allowed for Governmental purchases made from the small scale industries.

CREDIT FACILITIES

The agencies providing credit facilities to small scale industries are (i) Scheduled Banks, (ii) Co-operative Banks, (iii) Director of Industries & Civil Supply, Government of Rajasthan, (iv) State Financial Corporation and (v) Money-Lenders. There are four scheduled banks in the district, namely : The Punjab National Bank Ltd., The United Commercial Bank Ltd., The Bank of Rajasthan Ltd. and State Bank of Bikaner & Jaipur. Of these only the last one has provided credit facilities to small scale industries. The number of units allowed credit facilities as on 31st March, 1964 stood at six, as compared to four during 1963. The total credit allowed amounted to Rs. 2,15,000. The Central Co-operative Bank Ltd., Bikaner advanced Rs. 11,000 by way of loans to three Industrial Co-operative Societies during the years 1962-63 and 1963-64. The Rajasthan Financial Corporation has advanced a loan of Rs. 2,16,000 to only one unit namely China Wares & Potteries, Bikaner.

During the First and Second Five Year Plans, the loans advanced by the State Government to help the development of industrial units and craftsmen (including industrial co-operative societies) were as follows 1:

(Amount in Rupees)

Period	Industrial Co-operative Societies		Other Industrial Units		Total	
	No.	Amount	No.	Amount	No.	Amount
1st Plan	9	18,348	1	4,500	10	22,848
2nd Plan	17	55,856	38	1,07,150	55	1,63,006
1956-57	6	19,316	4	12,000	10	31,316
1957-58	7	20,040	1	2,000	8	22,040
1958-59	2	9,000	9	30,500	11	39,500
1959-60	2	7,500	15	36,650	17	44,150
1960-61	-	-	9	26,000	9	26,000

During the Third Five Year Plan, the Government further advanced loans under the State Aid to Industries Rules, 1961, to the tune of Rs. 66,000 in 1961-62, as against the total loans of Rs. 1,55,000 asked for by the small scale units. Amount of loans granted, however, declined to Rs. 6,250 in 1962-63 and Rs. 14,800 in 1963-64, as against total loan applications for Rs. 1,51,000 and Rs. 1,15,000 made by the small scale units during the corresponding period. During the years 1964-65 and 1965-66, loans to the extent of Rs. 16,000 and Rs. 4,000 were advanced to four and five parties respectively.

Indigenous bankers still play an important role in financing small scale units. The rate of interest charged by them, however, is very high, ranging from 12 to 36 per cent per annum, according to the credit worthiness of the loanees.

1. Nigam, B.L., *Industrial Potentialities and Development in Bikaner*, 1961, p. 21.

TECHNICAL EDUCATION

Facilities of technical education and availability of skilled labour are, by far, the most important factors influencing the development of industries in any area. With a view to providing technical know-how in the district, the State Government is running a Polytechnic an Industrial Training Institute and a Woollen Cottage Industries Training Institute, besides a number of training centres for shoe making and tailoring. Details of these are given below :

Government Polytechnic, Bikaner

Government Polytechnic, Bikaner started functioning in July 1962. It imparts training in electrical and mechanical trades besides civil engineering, and has an intake capacity of 45, 45 and 30 trainees in these branches, respectively. The details of the strength of the institution during 1965-66 is given below :

Class	Group of Engineering	Students on roll (Number)
I Year	Civil	30
	Mechanical	45
	Electrical	47
II Year	Civil	43
	Mechanical	51
	Electrical	54
III Year	Civil	32
	Mechanical	27
	Electrical	44

The period of training is three years. The first batch of the students completed their courses in 1965-66.

Industrial Training Institute, Bikaner

The Industrial Training Institute, Bikaner was established in November, 1959. It has facilities for training persons as black-smiths, carpenters, draughtsmen (civil), electricians, fitters and wiremen. Training period for first five trades is one year and for the rest, it is two years. The present capacity in each trade and the candidates trained during 1961-62 to 1964-65 are as follows :

(Number)

Name of the trade	Capacity during 1964	Persons trained			
		1961-62	1962-63	1963-64	1964-65
1. Black-smiths	16	—	8	—	—
2. Carpenters	32	11	8	3	5
3. Draughtsmen (Civil)	32	22	15	7	11
4. Electricians	32	15	17	17	17*
5. Fitters	32	12	16	9	4
6. Moulders	32	—	—	—	2
7. Sheet metal workers	16	—	—	—	—
8. Turners	24	24	—	15	9
9. Welders	24	—	—	—	—
10. Wiremen	32	—	—	—	—

Though it may, at the present moment, be difficult to evaluate the part played by the trained persons in the area yet there is no denying the fact that the trained labour would make a valuable contribution to the development of various industries in the foreseeable future.

Woollen Cottage Industries Training Institute, Bikaner

The Woollen Cottage Industries Training Institute, Bikaner was established in 1940, for the benefit of ex-servicemen and professional weavers. Initially, the Institute provided training in lacquer work, carpentry, hosiery, weaving and carpet making. It was reorganised as Woollen Cottage Industries Training Institute in 1956, after which it started imparting training in woollen trades, viz. woollen hosiery, woollen weaving, and manufacturing of woollen carpets, felts and *namda*. Candidates are drawn mainly from the artisan families. The total seats provided for trainees is 50, of which 25 are for weaving, 12 for hosiery and 13 for carpet making. The duration of training is one year. The number of candidates trained have been as follows :

Trade	1961-62	1962-63	1963-64	1964-65	1965-66
Hosiery	15	17	17	8	10
Weaving and carpet making	10	20	28	16	28

A stipend of Rs. 30 per month is given to a trainee coming from outside the city of Bikaner, whereas Rs. 20 per month is given to a local trainee.

INDUSTRIAL ESTATE

Land does not pose a problem for starting an industry in the district. The State Government has constructed an Industrial Estate at Bikaner, at a cost of Rs. 3,19,685. There are 18 sheds in the Estate. Area measuring 177 acres has also been earmarked as Industrial Area out of which a few allotments have been made to some units.

LABOUR LAWS & LABOUR WELFARE

There are no specific wage levels for the labourers but in the factories covered under the Minimum Wages Act, there exist three categories of monthly wage rates, which are:

- (a) For skilled workers : Rs. 100
- (b) For semi-skilled workers : Rs. 80
- (c) For unskilled workers : Rs. 60

The important Acts in force in the district are :

- 1. Indian Factories Act, 1948
- 2. Minimum Wages Act, 1948
- 3. Payment of Wages Act, 1936
- 4. Employment of Children Act, 1936
- 5. Motor Transport Workers Act, 1961
- 6. Working Journalists Act, 1955
- 7. Industrial Disputes Act, 1947
- 8. Workmen's Compensation Act, 1923
- 9. Employees' Provident Fund Act, 1952

There were two Government Labour Welfare Centres working in the district, one at Bikaner and the other at Jāmsar. The Centre at Bikaner was opened in 1956 and one at Jāmsar in 1958. The facilities provided at these centres were confined to provision for adult education, and sewing and tailoring classes and recreation through in-door and out-door games, library and reading room and music. These centres, however, were closed down on reasons of economy on 31.7.1965.

LABOURERS' AND EMPLOYEES' ORGANISATIONS

There were 35 Trade Unions registered in Bikaner district, at the end of the year 1965-66. Their list is given in Appendix III.

APPENDIX I

Towns and villages electrified in Bikaner district till 31st March, 1966

- | | |
|---------------------|-----------------------------------|
| 1. Akāsar | 25. Khāra |
| 2. Bikaner | 26. Kunkunia |
| 3. Bhināsar | 27. Kakara |
| 4. Belasar | 28. Kūdsu |
| 5. Bīchhwal | 29. Konwalisar |
| 6. Barsingsar | 30. Mokām |
| 7. Basi | 31. Naukha Mandi |
| 8. Berāsar | 32. Nāpasar |
| 9. Chāndi | 33. Nāl Chhola Station (Nāl Bari) |
| 10. Chāndsar | 34. Palāna |
| 11. Chanakara | 35. Rora |
| 12. Deshnoke | 36. Rirmalsar |
| 13. Devi Kundasagar | 37. Rāsisar |
| 14. Gangashahr | 38. Kolāyat |
| 15. Gajner | 39. Sinthal |
| 16. Gādhwālā | 40. Sūrpura |
| 17. Gusāīnsar | 41. Rāmsar |
| 18. Hematsar | 42. Srangtaniwas |
| 19. Jhajhu | 43. Salundia |
| 20. Jasrāsar | 44. Udrāmsar |
| 21. Jāmsar | 45. Udāsar |
| 22. Jaimalsar | 46. Udsar |
| 23. Koramdesar | 47. Udesar |
| 24. Karnīsar | |

APPENDIX II

Registered factories in Bikaner district
as on 31st December, 1966

S.No.	Name of the factory & address	No. of workers employed	Ownership
1	2	3	4
Cotton Ginning & Baling			
1.	M/S Darbari Lal Nathu Ram Sach Dev, G.No. 2 Jassusar Gate, Bikaner.	37	Private
Wool Baling, Pressing and Cleaning			
2.	Bikaner Woollen Press, Industrial area, Bikaner.	16	"
3.	Bikaner Wool Pratisthan, Bikaner.	75	"
4.	Rājasthān Woollen Press, Bikaner.	23	"
5.	Walker Angariya & Co., Bikaner.	50	"
6.	Bikaner Woollen Mills, Industrial Area, Rani Bazar, Bikaner.	110	"
7.	Ganesh Woollen Pressing Co., Bikaner.	7	"
8.	Modern Woollen Mills, Jassusar Gate, Bikaner.	10	"
9.	Walker Angariya & Sons Private Ltd., Wool Merchant, Dhamani Godowns, Bikaner.	80	"
10.	Jugal Kishor Ganeshlal Wool Merchant, Daga Chowk, Bikaner.	37	"
11.	Walker Angariya & Sons Private Ltd., Wool Merchant, C/o Shri Ganesh Wool Pressing Co. Ltd., Bikaner.	42	"
12.	Bikaner Wool Pratisthan, Songiri Road, Bikaner.	25	"
13.	Khadi Gram Udyog Pratisthan, Gangashahr Road, Bikaner.	45	"
14.	Walker Angariya & Sons Private Ltd., Songiri Godown, Bikaner.	28	"
15.	Mukand Lal Motilal Wool Merchant, Jassusar Gate, Bikaner.	37	"
16.	Nathmal Bhussidas, Jassusar Gate, Bikaner.	13	"
17.	Rājasthān Woollen Mills, Jassusar Gate, Bikaner.	29	"
18.	Jugal Kishor Ganeshlal, Wool Merchant, Bikaner.	37	"

1	2	3	4
19.	Chhalani Woollen Mills, Lalgah-Gajner Road, Bikaner.	33	Private
20.	M/S Shri Mahaveer Wool Merchant, Bikaner.	37	"
21.	Jaichand Lal Ghanshyam Das & Co., Bikaner.	20	"
22.	Nath Mal Bhairon Bux & Co. Wool Merchant, Bikaner.	38	"
23.	Vishwa Nath Sharma, Industrial Area, Bikaner.	55	"
24.	Kamal Singh Narindra Singh Bikaner.	37	"
25.	Shri Gopal Gaurishankar, Wool Merchant, G.No. 3, Jassusar Gate, Bikaner.	45	"
26.	Shri Gopal Gauri Shankar, Wool Merchant, G.No. 2, Jassusar Gate, Bikaner.	73	"
27.	Ratan Lal Kishan Lal, Wool Merchant, Bikaner.	24	"
28.	M/S Bharat Woollen Mills Ltd., Inside Bikaner Press, Rani Bazar, Bikaner.	75	"
29.	Tatters Field Co., Outside Jassusar Gate, Bikaner.	37	"
30.	India Wool Textile Fibre Co., Inside Bikaner Woollen Press, Rani Bazar, Bikaner.	30	"
31.	Shri Gopal Gaurishanker Wool Cleaning Factory, G.No. 3, Mohta Chowk, Bikaner.	37	"
32.	Jugal Kishore Ganeshi Lal, Wool Merchant, Inside Bikaner Woollen Press, Bikaner.	37	"
33.	Walker Angariya & Co., Inside Ganesh Press, Naya Shahr, Bikaner.	25	"
34.	Prem Ratan Vijai Shanker & Co., Inside Jassusar Gate, Bikaner.	75	"
35.	Ahuja Brothers Bikaner Woollen Press, Bikaner.	50	"
36.	Shri Gopal Gaurishankar & Co., Wool Cleaning Factory, G.No. 2, Bikaner.	75	"
37.	M/S Radha Krishna Manak Lal, Wool Merchant, Bikaner.	13	"
38.	Ganga Ram Satya Narayan, Jassusar Gate, Bikaner.	37	"
39.	M/S Arjun Das & Co., Rani Bazar, Bikaner	75	"
40.	Jai Chand Lal Ghanshyam Das, Rani Bazar, Bikaner.	37	"
41.	Pabudhan Champalal, Wool Merchant, Bikaner.	14	"

1	2	3	4
42.	M/S Gordhan Das Ratan Lal, Wool Merchant, Bikaner.	15	Private
43.	M/S S.K. Textiles, Gangashahr Road, Bikaner.	13	"
	Rice Mills		
44.	Rajasthan Industrial Corporation, Bikaner	15	"
	Dal Mills		
45.	M/S Ratan Industrial Corporation Dal Mills, Sadulpur.	7	"
	Woollen & Knitting Mills		
46.	M/S Rajasthan Khadi Gramodyog Board Ooni Finishing Plant, Bikaner	16	"
47.	The Advance Woollen Mill Private Ltd., Industrial Area, Bikaner.	40	"
48.	Govt. Woollen Production Centre, Bikaner.	15	Government
49.	Rajasthan Hosiery Mills, Gajner Road, Inside Compound of Rajasthan Woollen Mills, Bikaner.	50	Private
	Saw Mills		
50.	M/S Chhote Lal Ram Dev Saw Mills, Bikaner.	3	
51.	Rajasthan Timber Supply Co., Bikaner.	3	"
52.	Bikaner Bend Saw Mills, Bikaner.	4	"
53.	Bhunesh Ara Machine, Pratapmal Well, Bikaner.	3	"
54.	Bhanwar Lal Arora Ara Machine, Bikaner.	2	"
55.	Chunni Lal Sohanlal Ara Machine, Sadar Bazar, Bikaner.	2	"
56.	Badri Narain Jeth Mal Ara Machine, Deshnoke.	2	"
57.	Shri Mohan Flour Mills, Naukha Mandi.	1	"
58.	Bhanru Ram Mohanlal, Inside Kot Gate, near Phul Bai Well, Bikaner.	6	"
59.	Shri Vishwakarma Engineering Works, near Power House, Bikaner.	7	"
60.	M/S Saranjam Karyalaya Khadi Mandir, Bikaner.	14	"
61.	M/S Udho Ram Suthar Saw Machine, St. Road, Naukha.	3	"

1	2	3	4
62.	M/s Chunnilal Ramchand, Naukha.	3	Private
63.	Vishwa Karma Furniture House, Phul Bai ka Niwas, Bikaner.	5	"
64.	M/S Napasar Wool and Dal Industry, Industrial Area, Bikaner.	4	"
65.	Mahavir Wooden Industries, Rani Bazar, Bikaner.	9	"
	Wooden Industries		
66.	Sadhna Industry, Far Bazar, Bikaner.	3	"
	Letter Press & Lithography, Printing and Book Binding		
67.	Government Press, Bikaner.	75	Government
68.	Educational Press, Bikaner.	5	Private
69.	Mangal Mudranalaya, Bikaner.	3	"
70.	Jai Shri Mahapress, Masjid Road, Bikaner.	3	"
71.	M/S Lalkar Press, Bikaner.	3	"
72.	Laxmi Printing Press, Bikaner.	9	"
73.	M/S Shiv Printing Press, Bikaner	6	"
74.	Maheshwari Printing Press, Bikaner.	7	"
75.	Rajasthan Mudranalaya, Bikaner.	2	"
76.	Satish Printing Press, Bikaner.	2	"
77.	Lokmat Press, Hospital Road, Bikaner.	7	"
78.	Chand Printing Press, Bikaner.	3	"
79.	Gopal Printing Press, Bikaner.	3	"
80.	Jawahar Press, Jail Road, Bikaner	3	"
81.	Adarsh Mudranalaya, near Dangi Temple Bikaner.	3	"
82.	Ram Kishan Printing Press, Naukha.	2	"
83.	Pawan Art Press, Bikaner.	3	"
84.	Pethal Mudran Mandir, near Chowtina Well, Bikaner.	1	"
85.	M/S Swasth Sarita Press, inside Kot Gate, Bikaner.	3	"
86.	Time of Rajasthan Press, Kot Gate, Bikaner.	3	"
87.	Bikaner Art Publisher Ltd., Fort, Bikaner.	9	"
88.	Shri Ratan Fine Art Press, Bikaner.	9	"

1	2	3	4
Fine & Pharmaceutical, Chemical etc.			
89.	Mohta Ayurvedic Rasayanshala, Station Road, Bikaner.	25	Private
Rolling into Basic Form			
90.	Bharat Metal Iron Works, Bikaner.	25	„
Rough Castings			
91.	Mundra Metal Works, Bikaner.	20	„
Railway Workshop			
92.	Loco Carriage and Wagon Workshop, Bikaner.	1398	Govt.
Manufacturing of Bicycles			
93.	R.C.A. Industries, Dhan Ka Phar, Bikaner.	15	Private
Manufacturing of Ice			
94.	The Rampuria Ice Factory, Bikaner.	6	„
Plastic Articles			
95.	M/S Bikaner Polythene Products, Bikaner.	10	„
Others			
96.	Friends Engineering Works, Bikaner.	18	„
97.	Workshop, Electrical Mechanical Deptt., Bikaner.	75	Govt.
98.	Rajasthan Engineering Products, Bikaner.	10	Private
99.	M/S Udai Electric Industries, Metre House, Industrial Estate, Bikaner.	75	„
100.	Rajasthan State Electricity Board, Bikaner.	287	Local Fund

Source : List of Factories & Boilers issued by Chief Inspector of Factories & Boilers, Rajasthan, Jaipur.

APPENDIX III

Trade Unions in Bikaner District

S.No.	Name of the Union	Date of Registration	Membership
1	2	3	4
1.	Palāna Colliery Mazdoor Union, Palāna.	N.A.	N.A.
2.	Bikaner Division P.W.D. Mazdoor Union, Bikaner.	7.1.57	58
3.	Gypsum Mine Workers Union, Jāmsar.	8.7.58	704
4.	Palāna Colliery Karmachari Union, Palāna.	2.9.58	80
5.	Bikaner Press Employees' Union, Bikaner.	15.9.58	30
6.	Sindri Fertilisers Jāmsar Workers Union, Jāmsar.	30.6.59	29
7.	Rajasthan Govt. Press Karmachari Union, Bikaner.	1.7.60	35
8.	Bikaner Govt. Press Employees Union, Sakhlacha, Katla, Bikaner.	6.10.60	60
9.	Bikaner Municipal Karmachari Sangh, Khajanchi Building, Bikaner.	27.1.61	400
10.	Bikaner Division Trade Union Council, Khajanchi Building, Bikaner.	14.4.61	8
11.	Water Works Employees Union, Khajanchi Building, Bikaner.	10.7.61	300
12.	Garden Labour Union, Khajanchi Building, Bikaner.	2.8.61	119
13.	Bikaner Upwan Mazdoor Sangh, Bikaner.	14.8.61	30
14.	Rashtriya Jal Mazdoor Union, Bikaner.	23.8.61	50
15.	Power House Mazdoor Union, Bikaner.	9.9.61	350
16.	Begayat Karmachari Union, Bikaner.	5.9.62	20
17.	Palāna Colliery Workers Union, Bikaner.	31.5.65	86
18.	Bikaner Cinema Karmachari Union, Bikaner.	26.8.63	25
19.	Bikaner M.E.S. Workers Union, Bikaner.	30.8.63	36
20.	Metal & Engineering Workers Union, Bikaner.	26.10.63	25
21.	Rashtriya Gypsum Karmachari Sangh, Jāmsar.	29.1.64	300

1	2	3	4
22.	Hospital Employees Union, Bikaner.	22.5.64	43
23.	Rājasthān Bijli Board Karmachari Sangh, Bikaner.	17.6.64	43
24.	Motor Mazdoor Sangh, Bikaner.	23.11.64	70
25.	P.B.M. Hospital Karmachari Union, Bikaner.	23.11.65	40
26.	P.W.D. Employees Union, Bikaner.	11.8.65	150
27.	Rashtriya Oonth Chalak Congress, Bikaner.	31.8.65	25
28.	Rashtriya Tonga Chalak Congress, Bikaner.	31.8.65	35
29.	Tonga Union, Bikaner.	2.9.65	365
30.	Gada Thela Union, Bikaner.	20.11.65	100
31.	Wool Labour Union, Bikaner.	25.11.65	40
32.	Rājasthān Oon Mazdoor Congress, Bikaner.	17.12.65	150
33.	Camelmen & Mines Workers Union, Bikaner.	17.12.65	100
34.	Rashtriya Nagar Parishad Karmachari Congress, Bikaner.	17.12.65	43
35.	Rājasthān Zila Factories Workers Union, Bikaner.	21.12.66	50

CHAPTER VI

BANKING, TRADE AND COMMERCE

BANKING AND FINANCE

Historical Aspect

Before the advent of modern joint stock banking, the Shroffs and *Mahajans* were carrying on the business of banking on indigenous lines, but the scope for their business was limited in the then Bikaner State on account of low agricultural productivity and the consequential paucity of industrial raw material.

With the beginning of canal irrigation in the northern parts of the then Bikaner State, new avenues of financing agriculture opened up for bankers and money lenders and the bulk of the credit in the canal area, as in other parts of the State, was handled by them.

A committee was appointed by the State Government in 1929 to enquire into the banking conditions in the then Bikaner State, which comprised the present Bikaner, Gangānagar and Churu districts, on the lines followed by the Banking Enquiry Committee, formed for British India. According to the Report of the Bikaner Banking Enquiry Committee, published in 1930, the following credit agencies were then in existence :

1. Indigenous bankers and money lenders
2. Co-operative Societies
3. Bikaner Government

The indigenous bankers and money lenders played a very important part in the State's rural and urban economies. Next came the co-operative societies, wherever formed. The Government of Bikaner also advanced *taccavi* loans.

The agriculturist was thus able to borrow money from money lenders, co-operative societies and the Government of Bikaner. The indigenous money lenders advanced loans either on personal security or guarantee or on the security of crops or some other collateral securities. These indigenous bankers mixed transactions in money with their business as commission agents and grain and cattle merchants. They enabled cultivators to buy livestock, grain, seed and hay from them on

credit, on the condition that their crops, when raised, would be sold to the money lender, who would also charge interest. This often resulted in the farmer having to pay more with little choice in accepting the creditor's price for his produce. The actual terms of such financial arrangements varied with individual debtors, depending on their relative bargaining strength.

The money lenders often made advances on standing crops, estimating the contribution of the cultivator in terms of his labour, the cost of seed and other accessories being borne by the money lender himself. The cultivator was then guaranteed a small profit. According to the Banking Enquiry Committee, 1929, such money lenders were naturally more concerned with their own business rather than assisting the cultivators, but there is no denying the fact that substantial measure of assistance was often given by these money lenders, nor was it a wholesale truth that it always led to victimisation of the farmer.

The functions of the indigenous bankers and money lenders were discharged by persons belonging to Agarwal, Maheshwari, Oswal, Saraogi, Modi, Brahmin and Sikh communities, as also by *Zamindars* (Rajputs and Jats) in the then Bikaner State.¹ According to 1921 Census of Bikaner State, it was found that number of the money lenders and indigenous bankers, engaged solely in banking and money lending, was 4734.

The system of indigenous money-lending and banking was not an organised one, as different people followed different practices. Almost the whole of the business of advancing agricultural credit was carried on by these indigenous bankers and money lenders while the landlords played little part in it. These two agencies granted loans for every requirement of the cultivator while co-operative societies, wherever formed, rendered only small help. They granted loans for purchase of seeds, repayable in six months, for purchase of cattle and ploughs, repayable in two years and one year respectively and for other miscellaneous requirements, repayable at the time of next harvest. Normally, the period of maturity of a loan was till the next harvesting time, but it was often extended when the debtor was not in a position to repay. Indigenous money lenders were thus flexible in their dealings provided they were convinced that their money was safe. The co-operative societies would suspend recovery during a period of adversity and this was a distinct

1. *Report of Bikaner Banking Enquiry Committee, 1929.*

advantage over the terms of money lenders. However, the co-operative movement had limited operational area before 1930. In the case of government loans, people resented repayment of *taccavi*, if recovered in spite of a failure of crops.

The rate of interest charged by the money lenders ranged from $18\frac{3}{4}$ to 75 per cent per annum, while that charged by the landlords was 24 per cent, by the co-operative societies, $12\frac{1}{2}$ per cent and by the Government 6 per cent per annum.

The money lenders were classified into the following three categories according to their area of operation :

1. Village money lenders
2. Town money lenders
3. Big indigenous bankers.

The village money lenders were at the lowest rung of the ladder and lent money to the agriculturists and other villagers and sold grain, seeds, cattle etc., on credit, to the cultivators. These money lenders could be divided into two groups : (i) those who owned land and advanced money to their less fortunate brethren and (ii) those whose exclusive professional business was money lending.

Next in importance were the town money lenders. They could again be divided into two groups, viz., those whose business was limited to the area of the town and neighbouring suburbs and others who practised this hereditary profession on a large scale and had business arrangements in various towns and cities of India.

The indigenous bankers were more or less organised like joint-stock banking system. They received deposits, allowed withdrawals on current accounts, dealt in negotiable instruments (*Muddati* and *Darshani Hundis*) and commercial documents e.g. Railway Receipts, and the like. But even these indigenous bankers lacked organisation to cope with the growing and complex financial needs of trade, run on modern lines.

The following practices were generally followed by the indigenous bankers :

1. **ADVANCING LOANS AGAINST PROMISSORY NOTES**—This was the simplest form of advance. Some bankers and money lenders got a separate pronote executed for the loans advanced, while others were

satisfied with only a receipt for the loan or would get the signatures of the borrower in their account books called *bahis*.

2. **MORTGAGING**—This was also a common mode of advancing loans. The debtor offered to mortgage his piece of land, house or shop against the desired loan. The money lenders generally advanced money to such borrowers upto the extent of 50 per cent of the current market value of the property or as may be negotiated between them.

3. **DASTAWAZ**—This was another mode of granting loans. The only difference between a pronote and a *Dastawez* was that, in case of a pronote, the loan was repayable on demand, though there was usually a tacit understanding about the period of the loan, while in case of a *dastawez*, the creditor could not ask for repayment before the stipulated time.

4. **KHANDI**—This type, of loan was granted to people of moderate means e.g. clerks, artisans and petty merchants and was repayable in convenient instalments.

5. **PAWNING**—Under this system, gold and silver ornaments were pawned with the money lenders against the money advanced by them.

Other type of loans were known as *Khata Peta* and *Hath Udhar*. In the *Khata Peta* system the entry of the borrowed money was made in the account books (*Khata*) while *Hath-udhar* loans were raised for very short periods and the transaction was not entered in any commercial book, the amount being carried over as cash balance and an informal note to this effect made thereof.

Some money lenders in villages and the neighbouring *mandis* advanced loans in kind to cultivators in the form of seeds, cattle, manure etc. This was generally done when the crop was sown.

There were itinerant money lenders also who were generally called *banjaras* or *Pheriwalas*. They went from village to village with their camels or bullocks laden with salt, spices, oil, jaggery, sugar, tobacco and, sometimes, cloth and sold these articles on credit, converting the price into a debt, carrying a certain rate of interest and reappeared to recover it when the crops were ready.

According to the Bikaner Banking Enquiry Committee, 1929, the indigenous bankers and money lenders financed the whole of the agricultural operations from manuring and sowing to harvesting. They

marketed the agriculturists' produce, provided money for even their daily needs, did commission agency business, imported into the area cereals, cloth and other necessities of life and thus played a very important part in the economic life of the people. They also financed the subsidiary industries and trade of the State.

GOVERNMENT LOANS—*Taccavi* loans, granted by the erstwhile State of Bikaner, were restricted to the owners and occupiers of arable land and the purposes of these loans were to provide relief from distress caused by famines etc., the purchase of seeds or cattle and any other agricultural purpose. *Taccavi* loans were disbursed to the *Khatedars* through the tahsildars. The amount was to be reimbursed by the debtor when the crop had been harvested, if it was advanced for the purchase of seed. If it was for the purchase of cattle, repayment fell due after a year. In case of failure of crop, however, the recovery was generally suspended till the next harvest. Ever since this system came into force, it proved of immense value in times of distress caused by drought or epidemics and also met the cultivators' current needs. It was being gradually replaced by the co-operative credit system which assured more capital than could be spared by the Government.

Indebtedness

According to the findings of the Banking Enquiry Committee, 1929, the extent of agricultural indebtedness was of the order of Rs. 174 per head while the non-agricultural indebtedness stood at Rs. 290 per head. As per Rural Credit Survey (1956-57), conducted by the Reserve Bank of India, it was observed¹ that 60·7 per cent of the rural families were under debt at the end of April 1957. The average debt per family as on 1st May, 1956 was reckoned at Rs. 442, which increased to Rs. 702 at the end of April, 1957. A further analysis of these figures indicated that 59·9 per cent of the debt was taken for consumption purposes, 27·6 per cent for agricultural purposes, 7·6 per cent for non-farming business purposes, 3·5 per cent for the repayment of old debts and 1·4 per cent for other purposes.²

CAUSES OF INDEBTEDNESS—The Bikaner Banking Enquiry Committee, 1929, listed the following as the main purposes of agricultural debts :

1. *Rural Credit Follow-up Survey (1956-57)*, General Report, Reserve Bank of India, p. 35.
2. *ibid.*, p. 59.

1. Repayment of ancestral debts,
2. Marriage, death feasts and other social ceremonies,
3. Famine and other kinds of distress caused by the failure of crops,
4. Purchase of seeds, ploughs and manures,
5. Litigation,
6. Purchase of cattle, and
7. Growth of the debt, with compound interest, not having been paid.

The basic reason of a considerable extent of rural indebtedness lies even now in the poverty of the people, resulting from poor quality of soil, lack of irrigation facilities and scanty and erratic rainfall. Avoidable and imprudent social customs also make a heavy dent in their meagre resources, further strained by the brunt of periodical visitations of drought and famine.

Co-operative Movement

Co-operative movement was introduced in the district in 1920, with a view to diminishing rural indebtedness, promoting thrift and self help among agriculturists, artisans and other persons of limited means and bringing credit facilities within their reach. In March 1920, Co-operative Societies Act was passed and the first Registrar of Co-operative Societies of Bikaner State appointed. In 1924, a qualified Co-operative Inspector was appointed. The first co-operative credit society was formed for the Jodhpur-Bikaner Railway employees, but after the break-up of the joint administration of Jodhpur-Bikaner Railway from 1st November, 1924, a separate Bikaner State Railway Employees' Co-operative Society was registered in the month of July, 1925. It started working on 1st September, 1926, with a membership of 140 and paid-up share capital of Rs. 6,290. It made a steady progress and its share capital stood at Rs. 47,090 and working capital at Rs. 1,18,533, with membership of 762, at the end of 1941-42. In 1946-47, its share capital came down to Rs. 44,980 and membership to 740. The movement showed signs of progress in other fields also. At the end of October, 1936, the total number of primary co-operative societies in all fields was 106, with membership of 2338, share capital of Rs. 54,217 and working capital, including deposits and loans from the Co-operative

Union, of Rs. 5,52,083. In order to encourage the movement it was decided to exempt societies registered under the Co-operative Societies Act, from stamp duty and Registration fees.

The following table indicates the progress of co-operative movement during the period 1925-26 to 1930-31:

Year	No. of Co-operative Societies	Membership	Share Capital (Rs.)	Working Capital (Rs.)
1925-26	27	651	1,625	—
1926-27	48	1,056	21,124	96,544
1927-28	64	1,434	40,872	201,226
1928-29	77	1,724	43,330	249,302
1929-30	89	1,942	45,866	320,290
1930-31	102	2,229	50,751	457,705

Nothing spectacular, however, happened in the field of co-operation in the region which is now included in Bikaner district, from the year 1936 till Independence. In the year 1948, an Ordinance was promulgated which repealed the Bikaner State Co-operative Societies Act, 1920. The former was replaced by the Rājasthān Co-operative Societies Act 1953, substituted later by the Rājasthān Co-operative Societies Act, 1965. After the formation of Rājasthān, the district office of the Assistant Registrar Co-operative Societies was established at Bikaner on 8.5.1957. Prior to this, Assistant Registrar, Co-operative Societies, headquartered at Gangānagar was concurrently looking after Bikaner district. Co-operative credit societies advance loans to their members for the purchase of seeds, fertilisers, implements etc.

During the year 1956-57, there were 63 co-operative societies with a membership of 6,748, in the district. Their share capital was Rs. 32,081 and loans of the order of Rs. 8,07,347 were advanced by them during the year. The number of co-operative societies increased to 342 and their membership to 23,822 till 1961-62. Their share capital stood at Rs. 11,60,926 and the loans advanced increased to Rs. 19,27,301. There were in all 431 co-operative institutions with a membership of 43,669 as on 30.6.67. Their paid-up share capital was Rs. 24,36,063 and loans advanced by them during the year 1966-67

amounted to Rs. 34,98,578. The following table indicates the category-wise position of co-operative institutions at the end of June 1967¹ :

S No.	Type	Number	Member- ship (No.)	Paid-up share capital (Rs.)	Loans advanced during the year (Rs.)
1.	Central Co-operative Bank	1	272	4,81,700	10,47,619
2.	Agricultural Credit Societies	186	18,668	3,96,283	8,46,773
3.	Non-Agricultural Credit Societies	10	9,332	6,88,001	15,96,079
4.	Primary Marketing Societies	3	484	41,870	—
5.	Milk Supply Societies	8	182	13,010	—
6.	Sheep Breeding Societies	13	155	15,815	—
7.	Farming Societies	2	30	4,710	—
8.	Non-Agricultural Non. Credit Societies	44	1,355	1,24,264	38,242
9.	Central Consumers' Store	1	569	1,86,790	—
10.	Primary Consumers' Stores	52	7,384	1,65,220	—
11.	Housing Societies	3	59	2,910	—
12.	Weavers' Societies	36	1,464	1,57,125	—
13.	Other Industrial Societies	40	992	1,04,171	—
14.	District Institute	1	175	—	—
15.	Societies under liquidation	31	2,548	—	—

Scheduled Banks

STATE SAVINGS BANK, BIKANER—In order to promote the habit of thrift among the State employees and other members of the public, the Princely Government of Bikaner started a Savings Bank on 18th July, 1928. The Bank, while promoting a voluntary habit of thrift, offered more lucrative rates of interest, on investments, than the Postal Savings Bank. The scope of business of this bank enlarged when it was allowed to finance the development of industries, as well as to afford facilities to the

1. Source : Office of the Registrar, Co-operative Societies, Rājasthān, Jaipur.

general public in the conduct of their daily business. The business of the State Savings Bank made exceptionally rapid progress within a short time of its existence and the working of the bank had been attended by exceedingly good results, which was the direct outcome of the several facilities offered by it to the public. The following figures give some idea of the transactions carried out by it :

(Rs. in '000)

	1929-30		1930-31		1931-32	
	Deposits	With- drawals	Deposits	With- drawals	Deposits	With- drawals
1. Fixed Deposits	4,780	1,297	16,485	5,923	30,285	14,700
2. Savings Bank Accounts	310	163	805	603	985	544
3. Current Accounts	527	438	1,354	1,314	2,982	2,577

The Bank added six branches in 1929, of which one was at Bikaner city and five at other important towns of the State. During the year 1930-31, on the pressing demand from the public, five more branches were opened, one at Railway Workshop, Bikaner and the other four at important places in Canal area. The Railway Workshop branch afforded all the postal facilities also to the inhabitants since there was no post office in the vicinity. During the year 1935-36, the scope of activities of the bank was very much widened and it was permitted to transact all descriptions of banking business, with special regard to (1) Savings bank accounts, (2) Current accounts, (3) Fixed deposits, (4) Loans, overdrafts and cash credits, (5) Collections and Remittances, (6) Sale and Purchase of Securities, (7) Safe custody of articles, (8) Letters of credit and travellers' cheques and (9) Safe deposit Boxes, available to the public at a nominal rent.

The Bank acted as a representative in Bikaner for encashing letters of credit and travellers' cheques of a number of banks of high standing in and outside the country. It also acted as an agent for ten premier insurance companies for payment of premium free of any charge.

With the opening of the Bank of Bikaner Ltd., on 31st January, 1945, the State Savings Bank stopped functioning. Its management was transferred to the former with effect from 31st December, 1945.

The particulars of joint stock banks presently functioning in the district are given below :

Name of the Bank	Name of the branch	Date of establishment
1. The Central Bank of India Ltd.	The Central Bank of India Ltd., Bikaner	5.9.1964
2. The Bank of Rājasthān Ltd.	The Bank of Rājasthān Ltd., Bikaner	7.9.1961
3. State Bank of Bikaner & Jaipur	1. State Bank of Bikaner and Jaipur, Public Park, Bikaner	31.1.1945
	2. State Bank of Bikaner and Jaipur, Kote Gate, Bikaner	25.11.1946
	3. State Bank of Bikaner and Jaipur, City Branch, Bikaner	15.2.1945
	4. State Bank of Bikaner and Jaipur, Lunkaransar	24.2.1962
	5. State Bank of Bikaner and Jaipur, Naukha	2.1.1961
4. The United Commercial Bank Ltd.	The United Commercial Bank Ltd., Bikaner	28.9.1958
5. The Punjab National Bank Ltd.	The Punjab National Bank Ltd., Bikaner	26.10.1946
6. The Central Co-operative Bank Ltd.	The Central Co-operative Bank Ltd., Bikaner	19.5.1951

Rājasthān Financial Corporation

To assist the industries by grant of long term loans, the Rājasthān Financial Corporation was established in 1955, with its head-quarter at Jaipur. Till the end of 1965-66, two concerns from the district applied for loans of a total of Rs. 3,00,000 of which one, viz. The China Ware and Potteries was sanctioned Rs. 2,16,000.

Insurance

Before the nationalisation of life insurance, ten well known insurance companies were functioning in the then Bikaner State. Most

of these companies were dealing in both life and general insurance business. Life insurance business has now been taken over by the Life Insurance Corporation of India. The field officers of the Corporation who are known as Development Officers, are assigned the task of developing the field organisation. They appoint agents, educate them and supervise their working for maximum new business and render on the spot help to the policy holders in the area. These development officers are posted at practically all the tahsil headquarters in the district.

STATE INSURANCE—During the year 1927-28, the then Bikaner State Government introduced a scheme of life insurance and endowment assurance in order to promote the habit of thrift among the State government employees. The scheme was kept optional initially for two years and then for another year. It was, thereafter made compulsory. The rates of premium were comparatively lower than those fixed by other reputed private insurance companies and these were exempted from tax. Policy holders in need could get short loans against the amounts deposited as premiums. Policies were neither alienable nor could be attached in execution of decrees of civil courts or realisation of State claims. These benefits were later extended to the general public when the operational area of the state insurance was widened.

The 1953 Compulsory State Insurance Scheme for all the employees of Rājasthān, was made applicable in Bikaner district with effect from 1st March, 1954. The scheme was extended in three stages. In the first stage, it applied to all the permanent government employees drawing a pay of Rs. 51 and above. In the second stage, it was also extended to all the permanent employees drawing a pay between Rs. 35 and Rs. 50. Finally, the scheme brought into its purview all the permanent employees of the State Government. It also covered employees of the Panchayat Samitis and Zila Parishads, but later exempted them with effect from 1st February, 1962, continuing, however, for officials covered by it prior to that date. In 1960, the scheme was made applicable also to all the temporary state employees who had put in one year's service with the exception of those who were not likely to be made permanent. An Insurance Supervisor, with other staff, has been posted at Bikaner to look after the work in the district.

National Savings

Prior to the merger of the State into Rājasthān savings could be invested in Post office deposits and Postal Certificates, Bikaner State

Savings Bank, co-operative societies and Government loans. According to the observations of the Bikaner Banking Enquiry Committee, 1929, certain people did not resort to any of the above modes of investment but purchased gold and silver with whatever they saved, compelled, as they felt, by social customs which considered ornaments essential to keep the prestige of the family and for dowry as *stridhan*.

Before 1948, the administrative control of working of the small savings schemes was with the State Government. Authorised agents for the sale of National Savings Certificates on 2½ per cent commission, were appointed. For Bikaner State the work was being supervised by the State's National Savings Adviser, who was headquartered at Jodhpur. An office of National Savings Organisation was established in the district in 1949. At present, the organisation of the National Small Savings Scheme consists of one Assistant Regional Director, in-charge of Bikaner, Gangānagar, Churu and Nāgaur districts, who is assisted by one District Organiser and one upper division clerk, for Bikaner. The following figures show the total gross collections made under various schemes during the last five years :

(Rs. in thousand)

Year	Schemes				Total
	N. S. Cs.1	T.S.D.C./A.C.2	P.O.S.B.3	C.T.D.4	
• 1961-62	380	5	1,223	76	1,684
1962-63	200	61	1,063	94	1,418
1963-64	188	—	1,045	132	1,365
1964-65	342	40	1,179	100	1,661
1965-66	315	1	1,404	119	1,839

The following measures were taken to intensify the progress of Small Savings Scheme in Bikaner district.

1. Organisation of training camps of extra-departmental branch Post Masters and agents,

2. Launching of Savings drives,

1. N. S. Cs.—National Savings Certificates.
2. T. S. D. C./A. Cs.—Treasury Savings Deposits Certificates/Annuity Certificates.
3. P. O. S. B.—Post Office Savings Bank.
4. C. T. D.—Cumulative Time Deposits.

3. Seeking the help of various Heads of Offices/Departments, Local Bodies and associations etc., to promote the scheme in their respective spheres to secure investments, appoint agents, form pay-rolls and savings groups and invest provident funds of the employees in savings certificates.

4. Introduction of Pay-rolls Savings Group in Railway workshop at Bikaner. At the end of the year 1965-66, there were about 375 members of the group. Pay-rolls Saving Groups were also functioning in Panchayat Samitis, Lunkaransar and Bikaner.

Bikaner Coins

There are no coins extant which may have been struck by the rulers of Bikaner before they acknowledged the vassalage of the Delhi Empire. No coins have been found which could be attributed to the early rulers of the area. Before the opening of the mint by Maharaja Gaj Singh, the *Farruk Shahi* rupee (coin of the Emperor Farruk Siyar), was in currency. Maharaja Gaj Singh obtained a *Sanad* from Emperor Alamgir II permitting him to strike coins. Although it is claimed that this privilege was granted in *Samvat* 1809 (A. D. 1753), no record is available to substantiate this claim. It appears that coins were struck only after the year 1759, the first year of Shah Alam's reign. From the time of Maharaja Gaj Singh, all coins of the State were struck in the name of Shah Alam, till 1859, when the name of the Queen of England was first cut on the die.

Each ruler adopted a special device to distinguish his coins from the others. This was done by means of different symbols marked on the coins. For instance, *Pataka*, *Dhvaja* or Flag stood a symbol for Maharaja Gaj Singh, *Trisule* or Trident for Maharaja Surat Singh and *Kirnia* or a turban star for Maharaja Ratan Singh while for Maharaja Sardar Singh it was a *Chhata* or Umbrella, for Maharaja Dungar Singh, a *Chauri* or Fly-mask and for Maharaja Ganga Singh, a *Morchhal* or Peacock feather fly-whisk.

Gold coins had never been struck in the State and each of these rulers issued only silver and copper coins. Both the *nazr* (especially fine and of full weight) and ordinary rupees were issued. Maharajas Sardar Singh and Dungar Singh issued smaller silver coins of the value of a half, a quarter, and one eighth of a rupee also. The weight of a Bikaner rupee was reported to be 174 grains, with purity content of 167.47 grains. Prior to the days of Maharaja Sardar Singh, the copper

coins were very poorly struck and also varied a good deal in weight. The copper coins of Maharajas Sardar Singh and Dungar Singh are reported to be very fairly stamped and those of Maharaja Ganga Singh, the best executed in Rājputāna States.

The coins of both these metals were called after the name of the respective Maharaja, preceded by the word *Shahi*. The Durbar did not issue the coins but merely kept the *Sikka* or die and minted the coins after purifying the metal, when *Sahukars* (merchants) or other people brought them. 1,025 *mashas* of silver had to be provided for getting every 100 rupees each weighting 10 *mashas*, struck, the extra 25 *mashas* accounted for wastage in melting, custom duty, cleaning charges assaying and weighing charges etc.¹

TRADE AND COMMERCE

The export and import trade of the then Bikaner State, steadily kept pace with the introduction of improved means of communication and specially after the spread of a net-work of Railway lines. A separate Department of Commerce and Industry was created in 1920. An Industrial Exhibition was organised in the State during the Peace Celebrations, in December 1919, in which agricultural, mineral and other products of the State were exhibited. The exhibition created widespread interest and gave an impetus to industrial production in the State. The State Government took an active part in the British Empire Exhibition, wherein Bikaner indigenous arts and crafts articles were exhibited. Most of the exhibits elicited general appreciation and led to large demand for them from outside the State.

Imports and Exports

The major items of import were rice, *kirana*, cloth, salt, *shisham*-wood perfumery, *ghee*, oils of all kinds, country tobacco for smoking, gold and gold ornaments, silver and silver ornaments, lead, zinc, tin, fur, molasses, unrefined sugar, fancy goods and coal. The main items of export were wool, hides, *sarson*, *taramira* and bones.

Marketing

Before the introduction of railways, distances were large and means of communication meagre and the villages were almost self-sufficient economic units. The distribution of occupations was simple

1. Webb, W. W., *The Currencies of Hindu States of Rājputāna*, 1893, pp. 55 to 63.

and each village produced most of its food requirements and obtained other articles of daily necessity, from places nearby. But after the development of the means of communication, a few *mandis* came into existence. At present, there are three *mandis* in this district viz. Bikaner, Naukha and Lunkaransar. These are discussed in detail in subsequent paragraphs. In addition, there are weekly markets in each village known as *Painths* or *hats*, where food and other articles are brought and sold. Bulk of the village produce, however, is either sold in the village itself or purchased by the village money-lender. For want of quick means of transport, primitive carriages are used, resulting in belated arrivals in the *mandis* and wastage in transit, due to leakage.

The village money-lenders, merchants and the dealers are the major agencies who arrange marketing of the produce from the village to the *mandis* and from there further to the consumption and exporting centres. They provide necessary finance, enter into necessary negotiations for the sale of the produce and finally arrange its carriage from place to place according to the requirements of the trade.

Storage

There has been a general dearth of good storage accommodation for village produce. At the *mandi* centres the traders take godowns on rent, for the storage of grain, cotton and wool (called beaches), with no provision for insurance against loss by fire or theft.

RAJASTHAN STATE WAREHOUSING CORPORATION—A centre of the Rājasthān State Warehousing Corporation was established at Bikaner in April, 1960. The year-wise figures of produce, offered for storage at Bikaner, are given below :

Year	Produce offered (Tonnes)
	100
1961-62	355
1962-63	1423
1963-64	139
1964-65	

The articles stored were *Moong*, Wheat, Gram, Barley, *Bajra*, *Moth*, *Jowar*, *Gur*, *Methi*, Cotton seed, Linseed and Oil, Chillies and Vegetable *Ghee*. The Corporation had been running this Centre in a hired building. Owing to small arrivals since 1964-65, the staff of State Warehouse, Bikaner was temporarily withdrawn.

Mandis

BIKANER—Bikaner *Mandi* is a state regulated market, since July 1936. The main commodities brought to this *Mandi* for purchase and sale are Wheat, *Bajra*, Barely, *Jowar*, Gram, *Moong*, Groundnut, *Til*, Chillies and Wool. Bikaner is a Northern Railway junction station, an important distribution centre, as well as the biggest wool market of Rājasthān. The hinterland of the market extends to the area of Bikaner Panchayat Samiti and about 30 villages of Panchayat Samiti Kolayat. The approximate annual arrivals of these commodities in the market area are 3,78,080 quintals, valued at Rs. 420.65 lakhs. Eighty per cent of the produce is brought to the market by the producers. The total number of functionaries, operating in the market, is 696, consisting of 39 wholesalers-cum-general commission agents, 339 retailers, 112 traders of wool, four brokers, 200 *Hamals* and weighmen, one co-operative marketing society and one Warehouse man.

Market charges, operating in the *Mandi* before and after its regulation, are given in the following table :

(Rs.)

Kind of the Market Charges	Market charges for produce worth Rs. 100					
	Prior to Regulation			After Regulation		
	Cereals	Oil-seeds	Wool	Cereals	Oil-seeds	Wool
1. Commission	2.00	2.00	1.75	1.25	1.25	1.25
2. <i>Dalali</i>	0.07	0.07	0.08	0.07	0.07	0.05
3. <i>Hamali</i>	0.07	0.07	—	0.07	0.07	0.04
4. Weighment	0.07	0.07	0.15	0.07	0.07	0.03
5. Cartage (from station to <i>mandi</i>)	0.20	0.20	0.10	0.18	0.18	0.10
6. Unloading from cart	0.04	0.04	—	—	—	—
7. Excess weight	0.20	0.20	3.75	—	—	—
8. Insurance of godown	0.06	0.06	—	—	—	—
9. Godown Rent	0.10	0.10	0.15	0.10	0.10	0.05
10. <i>Goshala</i>	0.01	0.01	—	—	—	—
11. <i>Dharmada</i>	0.06	0.06	0.03	—	—	—
12. <i>Brahmacharya Ashram</i>	0.06	0.06	—	—	—	—
13. <i>Muddat</i>	0.35	0.30	0.31	—	—	—
14. Association charges	—	—	0.03	—	—	—
15. Postage	0.01	0.01	0.02	—	—	—
16. Cost of <i>Bora</i>	—	—	1.50	—	—	—
17. Refilling & stitching of <i>Bora</i>	—	—	—	—	—	0.10
Total	3.30	3.25	7.87	1.74	1.74	1.62

A Market Committee, consisting of the representatives of agriculturists, traders, co-operative organisation, Panchayat Samiti and the Government, looks after the regulation of buying and selling of agricultural produce, in the *mandi*. Market regulations are designed to prevent exploitation of the farmers or other small traders by merchants and commission agents. The law seeks to make marketing more efficient, so that farm produce brings better yields to the producers and is made available to consumers through the regular distribution system. A Marketing Inspector at Bikaner looks after the working of the market.

NAUKHA—Naukha is one of the biggest and the oldest grain *mandis* of Bikaner district. The approximate annual arrivals in the market are 1,00,000 quintals of goods valued at about Rs. 60.68 lakhs. The number of market functionaries, operating in the market, is 80, consisting of 14 traders and wholesalers, 26 retailers and 40 weighmen and *Hamals*.

Market charges, in this *mandi*, for commodities worth Rs. 100, before and after regulation, are given in the following table :

(Amount in Rs.)

Type of Charges	Before regulation		After regulation	
	Cereals	Oilseeds	Cereals	Oilseeds
1. Commission	—	—	1.00	1.00
2. <i>Dhalta</i>	1.30	1.30	—	—
3. <i>Hamali</i>	0.30	0.30	0.30	0.30
4. Weighment	—	—	0.05	0.05
5. <i>Goshala</i>	0.10	0.10	—	—
Total	1.70	1.70	1.35	1.35

The regulated commodities are *Bajra*, *Jowar*, *Moong*, *Moth*, *Guar*, *Arhar* and *til*, within the areas of Panchayat Samiti, Naukha and Naukha Municipal Board. A market committee, consisting of Government representatives and the representatives of the co-operative organisation, regulates the functioning of the *mandi*.

LUNKARANSAR—This *mandi* is located at a distance of approximately 81 km. by rail from Bikaner. There are 25 market functionaries, operating in the market, consisting of five wholesalers and 20 retailers.

The following table indicates the approximate annual arrivals of the commodities, in the three *mandis* of the district and the places wherefrom these are imported and where to these are exported :

Commodity	Annual Arrivals (in quintals)	Places wherefrom imported	Places where to exported
Bikaner			
1. Wool	150,000	Churu, Beawar	Uttar Pradesh, Punjab, Bombay
2. Wheat	200,000	Gangānagar, Punjab	—
3. Bajra	125,000	Nāgaur, Jaipur	—
4. Gram	50,000	Gangānagar	Madras
5. Jowar	5,000	Punjab, Nāgaur	—
6. Moong	10,000	Nāgaur, Churu, Gangānagar	—
7. Guar	100,000	Nāgaur, Churu, Gangānagar	Punjab
8. Cotton seed	25,000	Gangānagar, Ajmer	—
9. Groundnut	10,000	Uttar Pradesh, Merta	—
10. Barley	20,000	Punjab	—
11. Rice	100,000	Punjab, Udaipur, Kota, Bassi, Gangānagar	—
12. Til	50,000	Nāgaur	Madras
13. Chillies	10,000	Pali, Beawar	—
Naukha			
1. Moth	50,000	—	Punjab, Bombay, Gujrat, Madras
2. Bajra	25,000	—	Gujrat, Madras, Bombay, Punjab
3. Guar	10,000	—	Madras, Bombay, Gujrat, Punjab
4. Til	10,000	—	Madras, Bombay, Gujrat, Punjab
5. Wheat	10,000	Gangānagar	—
Lunkaransar			
1. Bajra	10,000	—	—
2. Wheat	8,000	Gangānagar	—
3. Guar	7,000	—	—
4. Cotton	2,600	—	—
5. Til	7,500	—	Madras, Bombay
6. Moth	11,200	—	Punjab, Bombay

Traders' and Merchants' Associations

Following are the important traders' and merchants' associations in the district :

1. Bikaner Vyapar Mandal, K. E. M. Road, Bikaner.
2. The Bikaner Pan Traders Association, Bikaner.
3. Cloth Merchants' Association, Bikaner.
4. United Chamber of Commerce, Bikaner.
5. Iron and Steel Merchants Association, Bikaner.
6. Bullion Association, Bikaner.
7. Bikaner Flour Mills Association, Bikaner.
8. Shri Bikaner Purchuni Anaj Committee, Bikaner.
9. Lohar Association, Bikaner.
10. Cycle Merchants Association, Bikaner.
11. Purchuni Vyapar Sangh, Bikaner.
12. Bikaner Anaj Committee, Bikaner.
13. Halwai Association, Bikaner.

These associations look after the interests of their members and collectively deal with the Government Departments and Railways, to help run the business of their members smoothly. They negotiate with the municipal authorities, with regard to the levy of octroi duty, etc., and other matters of common interest. They also collect statistics about their respective trades and look after the charitable institutions run with the help of the donations made by sellers and buyers in the *mandis*.

State Trading

During the Second World War, the prices of essential commodities showed a rising trend. In order to control the supply and prices of foodgrains, the Food Grains Control Order, 1942, was promulgated in the erstwhile Bikaner State, on 25th July, 1942, under which it was made incumbent upon the wholesale dealers to obtain licenses for the purchase, sale and storage of foodgrains. The export of specified foodgrains, outside the then Bikaner State, was banned. Kerosene oil and salt also came under the purview of this Central measure. Further, the Bikaner State Motor Spirit Rationing Order, 1941 and the Tyre Rationing Order 1942, were also promulgated in the State w.e.f. 15th August, 1941 and 15th August, 1942 respectively. The office of the Controller of Prices was separated from that of Inspector General of Customs and Excise, who used to hold the charge of both the departments. A post of the Director of Civil Supplies was created in June, 1943.

Similarly, in order to control the prices of cotton cloth and yarn, the Cotton Cloth and Yarn (Control) Order, 1943 was promulgated, under which all the dealers in cloth were required to take licenses. A Textile Merchants Committee was formed for the procurement and distribution of cloth, allotted to the State by the Textile Commissioner, Bombay. Depots were opened in the capital and Advisory Committees were formed to ensure an equitable and quick distribution to the general public.

After the formation of greater Rājasthān, state control over the supply and distribution of essential commodities continued in one form or the other. There were 199 fair price shops (of which 86 in rural areas) functioning in the district, for the distribution of wheat and sugar, in 1965-66.

The following figures indicate the quantities of imported wheat, allotted to the district, during the last 15 months, ending March 1966:

(Tonnes)	
Month	Wheat
January, 1965	1,935
February, 1965	1,590
March, 1965	1,560
April, 1965	1,590
May, 1965	1,590
June, 1965	1,575
July, 1965	1,575
August, 1965	1,268
September, 1965	736
October, 1965	1,920
November, 1965	1,040
December, 1965	2,112
January, 1966	4,326
February, 1966	3,440
March, 1966	3,388

The allotment of Millo was started from the month of March, 1966 and 896 tonnes of it were allotted to the district, during that month.

Weights and Measures

To provide uniform weights and measures and check fraud, the Government of the then Bikaner State introduced Bikaner State Weights and Measures Act, 1934. Under the act, the primary standard of weight, except for gold and silver, was a *seer* equal to 80 *tolas*. It conformed to the standard *seer* of British India. Standard of weight for gold was called a *tola*, equivalent to twelve standard *mashas* of British India. The standard of weight for silver was a silver *tola*, equivalent to ten standard *mashas* of British India. For the linear measure, the standard yard of British India, equivalent to 3 standard feet or 36 inches, was adopted. However, the existing 2 standard-feet-yard of Malmandi Department was permitted to continue as a measure of residential land in towns under the new Act. For measuring capacity, a measure containing one *seer* of water, at its maximum density, weighed in vacuume, was adopted.

Under the provisions of the 1934 Act, every standard weight and measure was to bear a State stamp and was to be registered, in the manner prescribed by the Government. Use of unregistered weights and measures was punishable with a fine, upto Rs. 50 for first offence and Rs. 100 for every subsequent offence. Approved standard weights and measures models were kept in the offices of the tahsildars or other such places, determined by the Government. Inspectors were appointed for enforcing, stamping, registering and certifying standard weights and measures.

METRIC SYSTEM OF WEIGHTS AND MEASURES—Rājasthān Weights and Measures Act, 1954, made operative with effect from 1st September, 1956, enforced the adoption of standardised and uniform weights and measures of *seer*, maund etc., throughout the territory of Rājasthān. Rājasthān Weights and Measures (Enforcement) Act, 1958, enacted on the lines of the Central law, replaced the old act and introduced the metric system in six districts of Rājasthān, including Bikaner, with effect from 1st October, 1958. After the expiry of two transitional years, during which both old and new weights were to continue side by side, new weights were made compulsory, from 1st October, 1960. New capacity measures were also introduced from 1st April, 1960 and made compulsory with effect from 1st April, 1962. New linear measures were introduced in the whole of the State with effect from 1st October, 1961 and made compulsory on 1st October, 1962.

Wide publicity was organised by the Department of Industries to acquaint the public with the new system of weights and measures. There is one Weights and Measures office at Bikaner, with laboratories at Bikaner and Naukha. There are four Inspectors and one Assistant Inspector (posted at Naukha), looking after the work in Bikaner district. To assist them, are two lower division clerks, five manual assistants and two peons. Dealers are granted licences liberally for the sale of metric weights and measures and they are required to maintain a stipulated minimum stock of weights etc.

CHAPTER VII COMMUNICATIONS

OLD ROUTES

Sufficient information is not available about the old routes except what can be gathered from the old Gazetteers and the writings of early foreign travellers who visited this area. Lieutenant A. H. E. Boileau has mentioned the following trade routes in his report published in 1937¹.

Routes	Distance		
	Miles	Furlongs	Yards
1. "Patun in Tonrwutee to Beekaner via Nuwulgarh, Futehpoor, Rutungarh and Badinoo".	183	3	207
2. "Beekaner to Jesulmer via Nal, Gujner, Koilath, Dihatra, Nokra, Sirund, Bap, Shakhasir, Sheehur, Chahin, Nautathula, Sodakhor, Chandun, Besungepeer".	188	2	48
3. "Beekaner to Nagor in Marwar via Ooderamsir, Desnoke, Raedeesir, Parwa, Nokha, Beekasir, Bhugoo, Ulae, Balan, Balooa".			31 Kos ²
4. "Beekaner to Jodhpur via Ooderamasir, Desnoke, Maniana, Chandesir, Koodsoo, Hansasir, Kukoo, Sarooto, Tatwas, Panchoree, Sathee ko, Beerloko, Tapoo, Hasanee Dhanee, Thoba, Newro, Bhusar, Mathuneco, Rampoor, Deyeejur".			64 Kos
5. "Beekaner to Jaipoor via Deedwana, Koochawun and Marot in Marwar".		92	„
6. "Beekaner to Bhutner".		63	„
7. "Beekaner Eastwad to Renee and Rajgarh".		83½	„
8. "Beekaner to Bahawalpoor via Poongal".		92	„

1. Boileau, Lt. A. H. E., *Personal narration of a tour through the Western States of Rajwara comprising Beekaner Jesulmer and Jodhpur with the passage of the great desert and a brief visit to the Indus and Bahawalpoor*, 1835, p. 192.

2. 1 Kos=3.2 Km. (approximately).

Some mention has also been made by Captain Burton¹ about the trade routes in his report for the year 1872-73 which says that a principal trade route ran from Delhi via Bhiwani, in Hisār, to Rājgarh in Bikaner, whence one line proceeded to Bikaner city via Reni. The other important trade route mentioned was from Bahāwalpur (now in Pakistan) via Majgarh and Pugal to the city of Bikaner.

Captain P. W. Powlett mentioned that there were practically no roads in Bikaner except a mile or so near the city towards Gajner. The journey through carts and camels was very irksome in the heavy sand. Goods were carried by camels but the rich people used to maintain *Raths* or light travelling carts.

The details of principal old routes within the Bikaner State territory, as given by Powlett were as follows² :

1. Bikaner to Ajmer Route—(Total length)	150 miles
(i) Bikaner to Deshnoke	16 "
(ii) Deshnoke to Charkara	20 "
2. Bikaner to Bahāwalpur Route—(Total length)	150 "
(i) Bikaner to Bardrasar	15 "
(ii) Badrasar to Karnisar	14 "
(iii) Karnisar to Pugal	20 "
(iv) Pugal to Mānjgarh in Bahāwalpur territory	60 "
3. Bikaner to Bhiwani Route—(Total length)	180 "
(i) Bikaner to Karnisar	12 Kos
(ii) Karnisar to Kalu	12 "
(iii) Kalu to Bahadursar	16 "
(iv) Bahadursar to Sardargarh	8 "
(v) Sardargarh to Reni	14 "
(vi) Reni to Rājgarh	14 "
(vii) Rājgarh to Khurd Kot	8 "
4. Bikaner to Sirsa Route—(Total length)	160 miles
(i) Bikaner to Malhasar	10 Kos
(ii) Malhasar to Khari	12 "
(iii) Khari to Nathwan	8 "
(iv) Nathwan to Sai	14 "
(v) Sai to Shekhsar	16 "
(vi) Shekhsar to Palu	16 "
(vii) Palu to Nohar	18 "
(viii) Nohar to Jamalki	10 "

1. Powlett Captain P. W., *Gazetteer of the Bikaner State*, p. 141.
2. *ibid*, pp. 96-97.

Major K. D. Erskine¹ writing about 35 years after Powlett also mentioned that the metalled roads existed only at or in the vicinity of the Capital (Bikaner) and their total length was 21½ miles (34.8 km.) in 1896, which increased to 35½ miles (57.1 km.) in 1901 and to 51.14 miles (82.3 km.) in 1905-06.

ROADS AND ROAD TRANSPORT

Roads

Due to sandy nature of the soil and the frequency of dust-storms and high winds, the feasibility of making roads is obviously limited. The sparseness of population also does not warrant heavy expenditure on these projects. Nevertheless, the road mileage has increased since Independence and now the district is considerably better served by good roads.

At the time of the launching of the First Five Year Plan², the total length of roads in Bikaner District was only 183 km. (114 miles). This increased to 753 km. (468 miles) at the end of 1955-56.

During the Second Five Year Plan, the Bikaner-Lunkaransar road was completed and construction work was also taken up on Bikaner-Chhattargarh and Bikaner-Dungargarh roads. The total expenditure on the construction and repair of roads amounted to Rs. 16.42 lakhs during the Second Five Year Plan, after which the road length increased to 913 km. During the Third Five Year Plan, a sum of Rs. 9.66 lakhs was spent on the construction and repair of various roads. The length of roads at the end of the year 1965-66 was 1,037 kilometres. The following table indicates the length of various types of roads from 1958-59 to 1965-66³.

(Kilometres)

Type of roads	1958-59	1959-60	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
1. Cement concrete	—	—	—	—	—	—	1	2
2. Painted	220	259	259	293	296	315	332	343
3. Metalled	150	159	196	161	132	140	114	134
4. Gravelled	84	230	188	192	156	195	178	188
5. Fair-weather dressed up tracks	352	219	270	320	352	312	343	370
Total	806	867	913	966	936	962	968	1037

1. Erskine, Major K. D., *The Rājputāna Gazetteers*, Volume III-A, 1909, p. 353.
2. *Bikaner Pragti ke Path par*, the Public Relations Department, Bikaner.
3. *Statistical Abstract, Rājasthān*, yearly volumes for various years.

At the end of Third Five Year Plan, the road length in the district in terms of population¹, was greater, being 2.33 km. per 1000 of population, than the average of 1.52 km. for the State as a whole.

Road Transport

MOTOR VEHICLES—The following table shows motor vehicles on road in the district, from 1957 to 1966².

Type of vehicles	(Number)									
	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1. Privates Cars & Jeeps	525	551	580	611	620	651	668	698	727	765
2. Private Buses	20	20	21	34	35	35	35	36	36	36
3. Motor Cycles, Tricycles & Rikshaws	137	165	180	194	213	211	230	244	266	292
4. Contract & taxi carriages	3	3	3	—	10	10	10	12	12	12
5. Stage Carriages	53	64	71	106	109	117	128	138	144	150
6. Public Carriers	116	125	129	154	156	170	197	220	238	256
7. Private Carriers	36	36	40	43	47	67	68	70	74	89
8. Tractors	24	26	30	31	34	36	36	39	43	46
9. Others	69	74	78	89	88	92	95	108	110	110
Total	983	1064	1132	1262	1312	1389	1467	1565	1650	1756

Thus, out of the total of 1756 vehicles on road in 1966, the largest number i.e. 765 was of privately owned cars and jeeps, followed by motor cycles, tricycles and rikshaws, numbering 292. The public carriers and stage carriages came next, their number being 256 and 150 respectively.

Besides the motor vehicles registration of other vehicles like bicycles, *tongas* and bullock-carts is done by municipal boards and some of the panchayat samitis, by charging a nominal registration fee.

Bicycle is used both in towns and the rural areas by the common man. In Bikaner city taxis are available at 50 paise per mile in addition

1. *Tratiya Panchvarshiya Yojna Pragati Prativedan*, 1961-66, p. 290.
2. *Statistical Abstract, Rājasthān*, yearly volumes for various years.

to haltage charges of Re. 1 per hour, while *tongas* are available both on the distance basis and Re. 1 per hour.

PUBLIC TRANSPORT—No route in Bikaner district has so far been nationalised and private buses ply on all routes within the district. 36 such private buses were on road during 1966. No inter-State bus service operates from anywhere in the district.

FARE AND FREIGHT—After the formation of Rājasthān, the State government fixed¹ maximum fare and freight rates for stage carriages and public carriers on all routes throughout the State. These were as follows :—

1. Stage carriages—for single journey per person on :

(i) A Class routes	8 pies per mile
(ii) B Class routes	11 pies „ „
(iii) C Class routes	14 pies „ „

These rates were revised as under with effect from 25.10.66 and were exclusive of Passenger Tax leviable under the Rājasthān Passengers and Goods Taxation Act, 1959² :

(i) A Class routes³

(a) Ordinary	3 pies per km.
(b) Express or Mail	
First 100 km.	4 „ „
Beyond 100 km.	3 „ „

(ii) B Class routes

(iii) C Class routes	4 „ „
	5 „ „

The minimum permissible fare was for 10 km.

2. Public Carriers—freight rates per single trip on :

(i) A Class routes	3 pies per mile
(ii) B Class routes	3½ „ „
(iii) C Class routes	5 „ „

1. Vide Notification No. R. D./10495/TC/50/XX dated 29th March 1951 under the Rājasthān Motor Vehicles Act (Adoption) Ordinance, 1950.
2. Source—Director of Transport, Rājasthān, Jaipur.
3. Routes classification according to road condition was :
A Class for cemented, tarred or metalled roads.
B Class for Gravelled or *Kankarred* roads.
C Class for all tracks, fair weather and other roads not included in A and B classes of routes.

There were 345 goods transport vehicles registered in the district in 1966 of which 89 were private carriers. The following 11 Goods Transport Companies are functioning in Bikaner :

1. Bikaner Globe Transport, Gangashahr Road, Bikaner.
2. New Bikaner Bombay Goods Transport Co., Gangashahr Road, Bikaner.
3. Agarwal Golden Transport Co. Pvt. Ltd., K. E. M. Road, Bikaner.
4. Jaipur Golden Transport Co. Pvt. Ltd., K. E. M. Road, Bikaner.
5. New Prem Krishana Transport Co., Gangashahr Road, Bikaner.
6. Delhi Public Goods Transport Co., Gangashahr Road, Bikaner.
7. Chand Transport Co., Gangashahr Road, Bikaner.
8. Laxmi Transport Co., Gangashahr Road, Bikaner.
9. Onkar Goods Transport Co., Gangashahr Road, Bikaner.
10. Gurunank Goods Transport Co., Gangashahr Road, Bikaner.
11. South Eastern Roadways Goods Co., Gangashahr Road, Bikaner.

Road Accidents

The table below indicates the number of accidents, persons injured and killed and the number of vehicles involved for each year separately during the years 1957 to 1966.

Year	No. of accidents	Persons killed	Persons injured	Vehicles involved
1957	14	1	24	14
1958	18	4	19	18
1959	16	5	10	17
1960	28	1	23	30
1961	33	11	41	32
1962	33	13	26	32
1963	42	5	32	38
1964	32	7	40	31
1965	29	13	52	30
1966	32	7	80	29

1. *Statistical Abstract, Rajasthan*, yearly volumes for various years.

RAILWAYS

The first railway section from Mārwar¹ to Bikaner city was opened in December, 1891, with a mileage of 43.65 (70 km.) and the extensions to Dulmera, Suratgarh and Bhatinda were completed in 1898, 1901 and 1902, respectively. The administration of the Jodhpur-Bikaner Railway was run under the joint auspices of the then States of Bikaner and Jodhpur. It was separated from 1st November, 1924.

The table below indicates the progress of Railways in the Bikaner State territory from time to time.

Sections	Date of opening	Distance within Bikaner Territory (in miles)
1. Bikaner-Mārwar Frontier Section	9th December, 1891	47.75 ²
2. Bikaner-Dulmera Section	2nd June, 1898	41.50
3. Dulmera-Suratgarh Section	1st January, 1901	71.85
4. Bikaner-Ratangarh Chord Line	24th November, 1912	84.97
5. Bikaner-Kolāyat Branch Line	30th October, 1922	27.29

The first two sections provided important metre-gauge links between Bombay Presidency and the Punjab via Mārwar Junction and Bhatinda. The Bikaner-Ratangarh chord linked the two important systems of the Bikaner Railway, running practically north and south, in the central and eastern parts of the erstwhile Bikaner State and provided direct connections between Bikaner city and important towns like Churu, Sardārshahr, Ratangarh, Sujāgarh and Sadulpur.

In 1963, the total railway route mileage in the district was 307, which worked out to 3.2 miles per 100 sq. miles of area, as compared to 3.1 miles for Rajasthan as a whole.

Railway Stations and Trains

The district has direct rail connections with Delhi, Jodhpur,

1. *Four Decades of Progress in Bikaner*, p. 98.

2. Length increased by 4.1 miles owing to diversion made in 1908-09.

Jaipur, Gangānagar and the Punjab. The following are the Railway stations in the district :

1. Bikaner	12. Malkisar
2. Napāsar	13. Jagdevwāla
3. Palāna	14. Jāmsar
4. Deshnoke	15. Kānāsar
5. Sūrpura	16. Lālgarh
6. Chīla	17. Nāl Bāri
7. Lunkaransar	18. Durbāri
8. Mahājan	19. Gajner
9. Arjansar	20. Kolāyat
10. Dulmera	21. Gādhwāla
11. Dhīrera	22. Naukha

The following are the details of up and down passenger trains running between Bikaner and other important stations :

S. No.	Between	Distance (km.)	Number of up and down trains
1.	Bikaner-Bhatinda	324	4
2.	Bikaner-Mārwar Jn.	404	2
3.	Bikaner-Delhi	463	4
4.	Bikaner-Kolāyat	50	2
5.	Bikaner-Rewāri	380	2
6.	Bikaner-Merta Road	172	2

Economic Importance of Railways

The rigours of frequent famines in the district have greatly been minimised by the improved means of communications, through rail lines, which enable speedy despatch of relief to the effected areas. Even water is supplied to scarcity areas in rail-borne tanks. The railways play a vital role in the economic life of the district, in that they help the export of surplus commodities like minerals and woollen goods and bring in food, fodder and other goods of daily use, not produced in the district. Besides, railways have afforded considerable employment opportunities to the people of Bikaner and have proved a veritable boon for the district.

AIR SERVICES

There is an aerodrome at Nāl near Bikaner but there is no regular air service.

TRAVEL AND TOURIST FACILITIES

Dharamshalas

In the days of caravan traffic, *dharamshalas* used to be maintained as halting places along the main trade routes. Many of these *dharamshalas* still exist at important places where passengers can stay without payment of rent.

Rest Houses

There is a Circuit House at Bikaner situated outside the Public Park. It has ten single and 3 double bed rooms. Both Government officers and private individuals are entitled to stay in the Circuit House on payment of the prescribed charges.¹ Facilities for food, both Indian and Western, electricity and piped water supply are available.

The State Public Works Department maintains a Dak Bungalow also, at Bikaner and Rest Houses at Kolāyat, Lunkaransar and Dea (in Kolāyat tahsil). In Bikaner Dak Bungalow, there are seven single bed rooms and one dining room, with facilities of electric lights piped water supply and attached flush latrines. There is no provision for boarding. There are two double bed rooms each in Rest Houses at Lunkaransar, Kolāyat and Dea. Kolāyat Rest House only is electrified. There is no facility of boarding in any of these rest houses. The staying charges² are the same as in Dak Bungalow, Bikaner.

Hotels

There are several hotels in the district but only Anand, Green and Deluxe Hotels, at Bikaner, are worthy of mention.

- Daily Charges for non-officials are :
 - Single person in a double room—Rs. 25.00
 - Two persons in a double room—Rs. 40.00.
 - Bed and Breakfast—Rs. 10.00.
 - Extra charges for air conditioned single room—Rs. 10.00. and Double room Rs. 12.00. The charges are Rs. 7.00 less for each additional person in the room.
 - Single room—Rs. 22.00 per head.
- Charges for private persons per head are Rs. 2.50 in Winter and Rs. 3.00 in Summer, while for Govt. Officers, 50 paise in Winter and Re. 1.00 in Summer.

POST AND TELEGRAPHS

In former times, the Bikaner State maintained its own establishment of postal runners called *Kasids*. These runners covered long distances on foot, with amazing speed. Major Erskine, writing in the Rājputāna Gazetteer in 1909, mentioned that, assisted by a camel for only one fourth of the distance, these runners regularly travelled 170 miles (272 km.) between Bikaner and Jaipur in three days and three nights, for which they received Rs. 9 for a single journey. They could, however, undertake this journey in forty-two hours, if necessary, and in such a case would be paid Rs. 32. Two of them usually travelled together, in case one should break down. Captain Burton, who was Political Officer to the ruler of Bikaner during the later part of the nineteenth century, wrote on the authority of the *Jamadars* of the Postal establishment that the quickest pace at which a *Kasid* on foot had been known to travel in this country, was fifty *kos* (85 miles) in eight *Pahars* (twenty four hours). The average non-stop journey on foot extended over forty five miles.

An Imperial Post Office was first opened at Bikaner in July, 1884. The State adopted Imperial Postal Unity in January, 1904. By 1908 there were in all 29 Government Post Offices and 4 Telegraph Offices besides telegraph offices at Railway Stations in the State. The Post Offices within the present Bikaner district area were located at Bikaner, Deshnoke, Gangashahr, Lunkaransar, Marh (Madh) (closed in February 1908), Mahajan, Napāsar, Pugal, Surpura and Udaisar. The establishment, maintained for escorting the mails, cost the State-exchequer Rs. 5,000 to Rs. 6,000 a year.

In 1951, there were 30 Post Offices in Bikaner District. By March, 1966 their number had gone up to 91, including 20 sub-post-offices and 70 branch offices, besides one Head Office at Bikaner. Their names are given in Appendix I.

A Central Telegraph Office at Bikaner and 13 other Telegraph Offices and 15 Public Call Offices were working in the district on 31st March, 1966. The names of these are given in Appendix II.

TELEPHONES

The first telephone exchange was installed at Bikaner in 1905, for connecting important buildings and institutions in the city.

1. *Census 1951, Rājasthān and Ajmer-District Census Hand Book, Bikaner, Part I, General Description and Census tables, p. xxvii.*

There is now a Central Battery Multiple Telephone Exchange at Bikaner. On 31st March, 1966, its working capacity was 720 connections while the actual number of working connections was 610 with 99 extensions.

RADIO STATION

A Radio Station was established at Bikaner on 28th April, 1963, to serve as a relaying centre for the programmes broadcast from Jaipur Station. Bikaner Station has one transmitter of 10 K.W. power and operates at 225.6 metres or 1330 kilo-cycles on the medium wave band. It serves an area coming, approximately, within 160 km. (100 miles) radius around it.

ORGANISATIONS IN THE FIELD OF COMMUNICATION

There were two associations, namely, Motor Services Association and Railway and Transport Passengers Association, working in Bikaner at the end of the year, 1963. The number of registered trade unions in the district on 31st March, 1966, stood at seven. The detailed particulars of these are given below :

Name of the Trade Union	Date of registration	Membership
1. Motor Mazdoor Sangh, Gangashahr, Bikaner	23.11.64	70
2. Rashtriya Oonth Chalak Congress, Bikaner	31.8.65	25
3. Rashtriya Tonga Chalak Congress Bikaner	31.8.65	35
4. Tonga Union, Bikaner	2.9.65	365
5. Gada Thela Union, Bikaner	20.11.65	100
6. Camelmen & Mines Workers Union, Bikaner	17.12.65	100
7. Rājasthān Zila Factory Workers Union, Bikaner	21.12.66.	50

APPENDIX I

Post Offices in Bikaner District

Under Bikaner Head Office

1. Akhāsar
2. Bamblu
3. Barsisar
4. Gersar
5. Jaimalsar
6. Jāmsar
7. Kānāsar
8. Karnīsar
9. Kolāsar
10. Nāl Bari
11. Palāna
12. Pugal
13. Rirmalsar
14. Sarera
15. Sheo Bari
16. Udāsar
17. Dhīrera
18. Bhinasar
19. Bikaner City
20. Bikaner Kutchery
21. Deshnoke
22. Desilsar
23. Jēnsindesar
24. Jānglu
25. Kesardesar
26. Rāsisar
27. Shinjguru
28. Surpura
29. Gajner Palace
30. Gandhi Vidhya Mandir, Bikaner
31. Gangashahr
32. Udrāmsar
33. Goswami Chowk, Bikaner
34. Jassusar Gate, Bikaner
35. Kote Gate, Bikaner
36. Lalkar

37. Lālgarh Palace, Bikaner
38. Lālgarh Road
39. Lunkaransar
40. Dulmera
41. Jaitpura
42. Kālu
43. Kapūrīsar
44. Kumasa
45. Mahājan
46. Malkīsar
47. Shejarasar
48. Shaikhsar
49. Napāsar
50. Belasar
51. Gusāinsar
52. Kuchor
53. Mudsar
54. Sintal
55. Railway Workshop, Bikaner
56. Rani Bāzār, Bikaner
57. Sadul Colony, Bikaner
58. Kolāyat
59. Bajju
60. Diyātra
61. Dadiyala
62. Gura
63. Jhajhu
64. Khindāsar
65. Station Road, Bikaner

Under Nāgaur Head Office

66. Bhandra
67. Dawa
68. Kāku
69. Saruda
70. Naukha
71. Berāsar

72. Bhadla
73. Bīkasar
74. Charkara
75. Dharong
76. Dhingsari
77. Gajsukhdesar
78. Gondusar
79. Hematsar
80. Jasrasar
81. Jasalsar
82. Kakra

83. Mensar
84. Nāthusar
85. Nōkh village
86. Pānchūn
87. Rāisar
88. Rōra
89. Udāsa
90. Udasar

Under Ganganagar Head Office

91. Khanīsar

APPENDIX II

Telegraph Offices and Public Call Offices in Bikaner District

Telegraph Offices

1. Head Post Office, Bikaner
2. City Post Office, Bikaner
3. Departmental Telegraph Office, Bikaner
4. Kote Gate, Bikaner
5. Lalgah Palace, Bikaner
6. Bhinasar
7. Deshnoke
8. Gangashahr
9. Gajner Palace
10. Lunkaransar
11. Napāsar
12. Naukha
13. Rani Bāzar, Bikaner
14. Kolāyat

Public Call Offices

1. Railway Goods Shed, Bikaner
2. City Post Office, Bikaner
3. Departmental Telegraph Office, Bikaner
4. Head Post Office, Bikaner
5. Kote Gate, Bikaner
6. Railway Station Bikaner
7. Mail Sorting Office, Bikaner
8. Bhinasar
9. Deshnoke
10. Gajner Palace
11. Gangashahr
12. Lunkaransar
13. Napāsar
14. Naukha
15. Kolayat

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

According to 1961 Census, the working population of the district was 1,75,406 consisting of 1,20,652 males and 54,754 females. Of this, 1,28,155 persons (78,890 males and 49,266 females) lived in rural areas and 47,250 persons (41,762 males and 5,488 females) in urban areas. The non-working population was 2,69,109 consisting of 1,12,047 males and 1,57,062 females. Of this 1,28,333 persons (55,649 males and 72,684 females) lived in rural areas while 1,40,776 (56,398 males and 84,378 females) in urban areas. The female non-workers outnumbered male non-workers in both the rural and urban areas. This is evident from the table given below¹ :

Item	(Number)					
	Rural			Urban		
	Males	Females	Total	Males	Females	Total
Total Population	1,34,539	1,21,950	2,56,489	98,160	89,866	1,88,026
A. Workers	78,890	49,266	1,28,156	41,762	5,488	47,250
B. Non-workers	55,649	72,684	1,28,333	56,398	84,378	1,40,776

Since no other survey of the district, indicating its occupational pattern, has been conducted, the analysis that follows is based on the data given in the Census Report, 1961.

The number of persons engaged in various occupations according to the 1961 Census in the district and in the State as a whole, are indicated in the following table.²

1. *Census of India 1961, Vol. XIV Rājasthān, Part II-A, General Population Tables, p. 167.*
2. *Census of India 1961, Vol. XIV Rājasthān Part II-B(i), General Economic Tables, pp. 6-7.*

	Bikaner		Rājasthān		Percentage to total population	
	Males	Females	Males	Females	Bikaner District	Rājasthān
A. Total Workers	1,20,652	54,754	61,41,506	34,42,334	39.46	47.55
I. Cultivators	57,962	40,344	42,05,067	28,50,012	22.11	35.00
II. Agricultural labourers	653	309	2,30,193	1,63,438	0.22	1.95
III. Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and allied activities	2,028	348	1,22,737	48,344	0.54	0.85
IV. Household industry	14,605	9,482	3,97,504	2,00,678	5.42	2.97
V. Manufacture other than household industry	4,873	813	1,51,184	20,841	1.28	0.86
VI. Construction	4,013	353	96,908	12,254	0.98	0.54
VII. Trade & Commerce	9,713	421	2,74,232	13,925	2.28	1.43
VIII. Transport, Storage & Communications	7,617	25	1,16,975	934	1.72	0.58
IX. Other Services	19,188	2,659	5,46,706	1,31,908	4.91	3.37
B. Non-workers	1,12,047	1,57,062	44,22,576	61,49,186	60.54	52.45

It is evident that 60.54 per cent of the total population of the district consisted of non-workers and workers were only 39.46 per cent. Similar figures for Rājasthān as a whole were 52.45 per cent and 47.55 per cent respectively. Among the workers, the largest number, i. e. 22.11 per cent of the total population, were cultivators in the district as against 35 per cent in the State as a whole. The occupational pattern of non-cultivators is studied according to main occupational groups as per 1961 census in the subsequent paragraphs.

PUBLIC SERVICE

The 1961 Census recorded separate figures only for Government servants falling in one category, viz., Administrative and Executive officials. Their number in the district was as follows¹ :

1. *Census of India 1961, Vol. XIV, Rājasthān, Part II-B(ii) General Economic Tables, p. 37.*

	Total			Urban		
	Persons	Males	Females	Persons	Males	Females
Central Government Officials	45	45	—	45	45	—
State Government Officials	312	307	5	276	272	4
Local Government Officials	22	20	2	20	18	2
Quasi-Government Officials	24	24	—	—	—	—
Village Officials	210	203	7	171	169	2
Government Officials not elsewhere classified	3	3	—	2	2	—
Total	616	602	14	514	506	8

Separate statistics of government servants in academic occupations such as teachers, doctors, engineers, etc. were not recorded in the census report. Of the 616 Government officials falling under the category of Administrative and Executive officials, only 14 were females. 514 of them were posted in urban areas while only 102 were serving in rural areas. The number of public servants has been increasing considerably since 1951, due to the setting up of new offices, opening of educational and other institutions and especially because of the increase in the developmental activities of the Government.

The State Government servants in the district like those in the State, are entitled to various amenities under rules. In addition to their basic pay, all Government servants are paid dearness allowance at varying rates depending on the amount of pay. The dearness allowance is revised from time to time according to the consumers' price index. Besides, House Rent Allowance is also paid to Government employees posted in Bikaner City. Loans are admissible to Government employees for the construction and repairs of their houses and also for the purchase of conveyance. The quantum of these loans depend on the pay and status of the Government servant. These loans are repayable in easy instalments and reasonable rate of interest is charged. The expenditure incurred by the Government employee on his own medical

treatment and that of his family members dependent on him is also reimbursable without any restriction. The State Government has also constructed some quarters for allotment to the employees in the district.

There is a scheme of compulsory insurance of all Government employees, who have put in a service of one year, in order to encourage habit of thrift and to provide for the family members in case of the premature death of the bread earner. On superannuation a Government servant is entitled to pension and the benefits of gratuity scheme. Besides, festival advance and food grains advance are also granted occasionally to the Government servants to give them some relief.

PROFESSIONAL, TECHNICAL AND RELATED WORKERS

This group covers (i) Architects, Engineers, Surveyors, (ii) Chemists, Physicists, Geologists and other Physical Scientists, (iii) Biologists, Veterinarians, (v) Physician, Surgeons and Dentists, (v) Nurses, Pharmacuticians and other medical and health technicians, (vi) Teachers, (vii) Jurists, (viii) Social Scientists, (x) Artists, Writers and (x) Draughtsmen and Science and engineering technicians etc. In this occupational group, 4,538 persons were engaged of which 621 were females. Out of this about 79 per cent i.e. 3,609 persons (3,079 males and 530 females) were living in urban areas while the remaining 21 per cent were residing in rural areas. In all, 197 persons were grouped under Architects, Engineers and Surveyors, of which 143 were residents of urban areas. There was no female worker under this group. The chemists, physicians, geologists and other physical scientists numbered only 12, of which two were females. There were only 17 Biologists Veterinarians and Agronomists etc. and there was no female worker under this group.

The number of physicians, surgeons and dentists was recorded as 259, of which 21 were females. Out of this, 203 i. e. about 79 per cent were working in urban areas. The nurses, pharmacists and other medical and health technicians numbered 503, including 136 females, of which about 95 per cent i.e. 481 including 125 female workers, were working in urban areas and only 5 per cent were living in rural areas. In the educational field, of the 2,143 persons engaged, 159 (122 males and 37 females) were college teachers, 345 (308 males and 37 females) secondary school teachers and 1,244 (996 males and 248 females) teachers in middle and primary schools; unclassified teachers numbered 392 (348 males and 44 females). Of this, 1,560 teachers (1,233 males

and 327 females) were working in urban areas. The legal practitioners including petition writers numbered 148, of which 144 were working in urban areas. The social scientists and related workers numbered 166 including two female workers while the artists, writers and related workers were 264 in number, including 59 female workers. The number of draughtsmen and science and engineering technicians was 97 while other professional, technical and related workers numbered 732, which included ordained religious workers, astrologers, palmists and 1 librarians etc.

There is a bar association at Bikaner which was established in 1928. It had 120 members during 1966.

ADMINISTRATIVE, EXECUTIVE AND MANAGERIAL WORKERS

The total number of persons engaged as Administrative, Executive and Managerial workers excluding government servants was 718 (705 males and 13 females), of which 682 i.e. about 95 per cent were working in urban areas. Of the total number of persons in this category, 21 were engaged as directors and managers of wholesale trading concerns, 26 were directors, managers and working proprietors of financial institutions, 19 those of banks and 652 of institutions relating to mining, quarrying, well drilling, electrical undertakings, manufacturing, transport and communication, recreation, entertainment and catering services.

CLERICAL & RELATED WORKERS

Under this division are included (i) Book-keepers and cashiers, (ii) Stenographers and typists, (iii) Office machine operators, (iv) Miscellaneous clerical workers and (v) unskilled office workers. The number of workers engaged in this category was 6,302 which included 143 females. Out of this category about 87 per cent, numbering 5,489, were working in urban areas. The number of stenographers and typists was 110 (including two female workers), office machine operators 25, miscellaneous clerical workers 2,853 and unskilled office workers numbered 2,046, which included 123 females. The rest of them were book-keepers and cashiers.

SALES WORKERS

The total number of workers engaged in sales business was 8,945, which included 378 females. Of this number, 7,437 (7,195 males

and 242 females) were working in urban areas. The working proprietors in wholesale and retail trade were 6,919 including 288 females. Most of them were pursuing their callings in urban areas. The insurance and real estate salesmen of securities and service and auctioneers, numbered 76, including 16 female workers. Commercial travellers and manufacturing agents numbered 226. There was no female worker amongst them. Salesman, shop assistants and related workers numbered 1,617 (including 29 female workers) of which 1,540, including 26 females workers, were working in urban areas. The number of money lenders and pawn brokers was recorded as 107 including 45 females.

FARMERS, FISHERMEN, HUNTERS AND RELATED WORKERS

Under this category, 17,606 workers (including 6,581 females) were recorded, of which only 464 were in urban areas. The farmers and farm managers numbered 32 (including 7 females). All of them were in urban areas. The farm workers numbered 17,443 including 6,574 females, of which 427 were in urban areas. The number of hunters and related workers was only 6, while loggers and other forestry worker numbered 125. There were no female workers in both these categories.

MINERS, QUARRYMEN AND RELATED WORKERS

The number of workers engaged as miners and quarrymen was 980 including 103 females. There were only 11 male workers in urban areas while the rest were living in rural areas.

TRANSPORT & COMMUNICATION SERVICES

The total number of persons engaged in this category was 2,915 including 6 females, of whom 2,438 (including 6 females) were in urban areas. The number of Deck and Engine-Room Ratings and boatmen etc., was 10, Drivers and Firemen-Railway Engine 205, Drivers-Road Transport 1838, conductors, guards and brakesman (railway) 46, Inspectors, Supervisors, Traffic Controllers and Despatchers-transport 339, telephones, telegraphs and related tele-communication operators 86 and postmen and messengers numbered 122. The number of other workers engaged in Transport and Communication services was 269.

CRAFTSMEN AND OTHER PRODUCTION PROCESS WORKERS¹

The total number of workers engaged under all these related activities of work was 24,868 (19,942 males and 4,926 females) of which 18,089 (15,859 males and 2,230 females), being about 73 per cent of the total, were working in urban area.

SERVICE, SPORTS AND RECREATION WORKERS²

The total number of workers engaged under this head was 7,949 which included 1,303 female workers. Of this, 6,110 persons (4,898 males and 1,212 females) were in urban areas, representing about 77 per cent of the total.

In rural areas, the number of domestic servants is very small as there does not appear to be much demand for such services. Only a few well-to-do families engage full-time domestic servants. They are paid partly in cash and partly in kind. The wages in cash range from Rs. 40 to Rs. 60 per month, besides two meals a day. In urban areas domestic servants are engaged on full time as well as on part time basis and their wages, paid mostly in cash, vary according to the time and nature of work. Part time domestic servants are generally employed to clean utensils and for sweeping and washing clothes. Child labour for domestic work is also prevalent in urban areas and the wage rate ranges from Rs. 25 to Rs. 30 per month in addition to meals.

Besides, workers classified above, there were 720 workers (including 13 females) in the district whose occupations were not clearly classified or defined.

1. This includes (i) spinners, weavers, knitters, dyers (ii) tailors, dress makers and garment makers, (iii) leather cutters, lasters and sewers (except gloves and garments), (iv) furnacemen, rollers, drawers, moulders, and related metal making and training workers, (v) precision instruments makers, watch makers, jewellers, (vi) tool makers, mechanics, plumbers, welders, plate makers, (vii) electricians and related electrical and electronics workers, (viii) carpenters, joiners, cabinet makers, coopers, (ix) compositors, printers, engravers, book-binders, (x) potters, kilnmen, glass and clay formers, (xi) millers, bakers, brewmasters and related food and beverage workers, (xii) chemical and related process workers, (xiii) tobacco preparers and product makers, (xiv) testers, packers, sorters and related workers and (xv) stationary engine and excavating and lifting equipment operators and related workers.
2. Under this are included (i) fire fighters, policemen, guards, (ii) house-keepers, cooks, maids and related workers, (iii) waiters, bartenders, (iv) building caretakers, cleaners, (v) barbers, hair-dressers, beauticians and (vi) athletes, sportsmen, photographers and related camera operators.

It may be interesting to study the workers and non-workers by their age groups. The 1961 Census throws sufficient light on this aspect. Appendix I, given at the end of this chapter, describes the workers by sex, age group and type of activity. It is evident that among the workers, the largest number (63,482 males and 19,288 females) was in the age group of 15-34. The age group consisting of the second largest number of workers was 35-59, claiming 40,556 male and 16,389 female workers.

Among the cultivators, age groups of 15-34 and 35-59 were preponderant, though there were sufficient number of workers who were above 60 and below 15 years of age. This was true also in case of agricultural labourers, workers engaged in mining, quarrying, forestry, fishing, hunting and plantation, orchards and allied activities, household industry, manufacturing other than household industry, construction work, trade and commerce, transport storage and communication and other services.

In rural areas, besides the fact that the larger number of workers fell in the age groups of 15-34 and 35-59, the number of workers falling in the age group below 14 and above 60, was also considerable. This was more so among cultivators and agricultural labourers. The age groups of 15-34 and 35-39 were equally preponderant in urban areas, but the number of workers in the age group below 14 and above 60 was much less in the urban than in the rural areas, the only exceptions being workers in manufacturing, other than household industry, construction, trade and commerce, transport, storage, communication and other services.

A majority of the non-workers constituted of dependents including disabled persons and infants. Their number was 72,689 males and 80,570 females, of whom 65,982 males and 68,834 females were below the age of 14 years. The non-workers engaged in household duties, numbered 657 males and 65,632 females. Full time students were 35,976 males and 10,239 females. Appendix II given at the end of this chapter indicates the number of non-workers by sex, age group and category of occupation.

EDUCATIONAL LEVEL

URBAN—Out of a total of 47,250 workers in urban areas, 21,039 (16,365 males and 4,674 females) were illiterates, 17,938 workers were recorded as literates without any educational levels. Literates upto

primary or junior basic level numbered 2,687, including 107 females. Matriculates or those who had read upto Higher Secondary level numbered 3,925 which included 133 females. The number of females holding University or post-graduate degrees was also quite encouraging.

RURAL—11,195 workers including 593 female workers were literates without any educational levels, while 1,744 workers including 71 females had read upto Primary and Secondary levels. The matriculates numbered 950 which included 11 females. Appendices III and IV give detailed information about the educational level of the workers engaged in the various vocations in urban and rural areas,

APPENDIX I
Persons at work, classified by sex, broad age-groups and types of activities in Bikaner District

Age-group	Total workers		Cultivators		Agricultural Labourers		Mining, Quarrying, Live-stock & allied activities		Household Industry	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
1	2	3	4	5	6	7	8	9	10	11
District										
Total	1,20,652	54,754	57,962	40,344	653	309	2,028	348	14,605	9,482
0-14	9,344	6,922	5,940	5,452	93	33	53	20	2,433	1,286
15-34	63,482	29,288	29,262	22,213	405	178	1,382	258	7,130	4,629
35-59	40,556	16,389	18,515	11,345	130	83	567	66	4,077	3,053
60 and above	7,255	2,149	4,234	1,330	25	15	26	4	965	512
Age not stated	15	6	11	4	-	-	-	-	-	2
Rural										
Total	78,890	49,266	57,293	39,397	626	220	1,891	328	12,263	8,484
0-14	8,523	6,704	5,887	5,371	82	18	49	19	2,371	1,241
15-34	40,731	26,629	28,986	21,733	398	133	1,310	249	5,955	4,078
35-59	24,381	14,146	18,274	11,006	125	60	511	58	3,168	2,719
60 and above	5,241	1,781	4,136	1,283	21	9	21	2	769	444
Age not stated	14	6	10	4	-	-	-	-	-	2
Urban										
Total	41,762	5,488	669	947	27	89	137	20	2,342	998
0-14	821	218	53	81	11	15	4	1	62	45
15-34	22,751	2,659	276	480	7	45	72	9	1,175	551
35-59	16,175	2,243	241	339	5	23	56	8	909	334
60 and above	2,014	368	98	47	4	6	5	2	196	68
Age not stated	1	-	1	-	-	-	-	-	-	-

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Miscellaneous Occupations

Age-group	Manufacturing other than Household Industry		Construction		Trade & Commerce		Transport, Storage & Communications		Other Services	
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
12	13	14	15	16	17	18	19	20	21	
District										
Total	4,873	813	4,013	353	9,713	421	7,617	25	19,188	2,659
0-14	160	31	175	18	173	18	42	-	275	64
15-34	2,730	381	2,264	186	4,529	142	4,831	14	10,949	1,287
35-59	1,736	364	1,419	140	4,256	215	2,668	9	7,188	1,114
60 and above	247	37	155	9	755	46	76	2	772	194
Age not stated	-	-	-	-	-	-	-	-	4	-
Rural										
Total	486	164	331	68	1,564	152	860	5	3,576	448
0-14	25	8	16	5	36	13	1	-	56	29
15-34	260	84	185	45	779	72	567	3	2,291	234
35-59	168	68	112	20	633	56	287	-	1,103	159
60 and above	33	4	18	-	116	11	5	2	122	26
Age not stated	-	-	-	-	-	-	-	-	4	-
Urban										
Total	4,387	649	3,682	285	8,149	269	6,757	20	15,612	2,211
0-14	135	23	159	13	137	5	41	-	219	35
15-34	2,470	297	2,079	143	3,750	70	4,264	11	8,658	1,053
35-59	1,568	296	1,307	120	3,623	159	2,381	9	6,085	955
60 and above	214	33	137	9	639	35	71	-	650	168
Age not stated	-	-	-	-	-	-	-	-	-	-

1. Census of India 1961, Vol. XIV, Rajasthan, Vol. 11-B(i), General Economic Tables, pp. 6-7.

APPENDIX II
Persons not at work classified by sex, broad age-groups and type of activity in Bikaner District.

Age-group	Total non-working population				Full time students		Households duties		Dependents-infrants & disabled persons		Retired, rentier or independent means		
	Persons	Males		Females		Males	Females	Males	Females	Males	Females	Males	Females
		2	3	4	5								
District													
Total	2,69,109	1,12,047	1,57,062	35,976	10,239	657	65,632	72,689	80,570	1,140	187		
0-14	1,81,472	94,513	86,959	28,255	9,284	197	8,804	65,982	68,834	-	-		
15-34	48,413	10,329	38,084	7,654	937	166	34,109	1,827	2,948	17	4		
35-59	24,543	2,611	21,932	56	13	225	18,975	1,347	2,724	439	79		
60 and above	14,277	4,384	9,893	10	2	69	3,737	3,324	5,880	684	104		
Age not stated	404	210	194	1	3	-	7	209	184	-	-		
Rural													
Total	1,28,333	55,649	72,684	13,552	1,747	9	22,755	41,634	47,909	111	43		
0-14	99,120	51,085	48,035	12,260	1,639	8	4,853	38,781	41,517	-	-		
15-34	14,112	1,823	12,289	1,277	94	1	10,658	445	1,488	4	-		
35-59	7,757	480	7,277	5	10	-	5,894	327	1,287	32	16		
60 and above	6,958	2,061	4,897	9	1	-	1,346	1,882	3,438	75	27		
Age not stated	386	200	186	1	3	-	4	199	179	-	-		
Urban													
Total	1,40,776	56,398	84,378	22,424	8,492	648	42,877	31,055	32,661	1,029	144		
0-14	82,352	43,428	38,924	15,995	7,645	189	3,951	27,201	27,317	-	-		
15-34	34,301	8,506	25,795	6,377	843	165	23,451	1,382	1,460	13	4		
35-59	16,786	2,131	14,655	51	3	225	13,081	1,020	1,437	407	63		
60 and above	7,319	2,323	4,996	1	1	69	2,391	1,442	2,442	609	77		
Age not stated	18	10	8	-	-	-	3	10	5	-	-		

Miscellaneous Occupations

Age-group	Beggars vagrants etc.		Inmates of penal, mental, & charitable institutions		Persons seeking employment for the first time		Persons employed before, now unemployed and seeking work.	
	Males		Males		Males		Males	
	14	15	16	17	18	19	20	21
District								
Total	834	408	21	2	294	13	436	11
0-14	66	34	-	-	12	2	1	1
15-34	209	79	5	-	213	3	238	4
35-59	324	132	10	2	56	6	154	1
60 and above	235	163	6	-	13	2	43	5
Age not stated	-	-	-	-	-	-	-	-
Rural								
Total	316	228	2	1	18	-	7	1
0-14	35	26	-	-	1	-	-	-
15-35	73	48	1	-	17	-	5	1
35-59	113	69	1	1	-	-	2	-
60 and above	95	85	-	-	-	-	-	-
Age not stated	-	-	-	-	-	-	-	-
Urban								
Total	518	180	19	1	276	13	429	10
0-14	31	8	-	-	11	2	1	1
15-34	136	31	4	-	196	3	233	3
35-59	211	63	9	1	56	6	152	1
60 and above	140	78	6	-	13	2	43	5
Age not stated	-	-	-	-	-	-	-	-

APPENDIX III

Industrial Classification of Workers and Non-workers by Educational Levels in Urban Areas in Bikaner District¹

Educational levels	Total workers		Workers								At Household Industry	
	Males	Females	As Cultivators		As Agricultural Labourers		In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, etc.				Males	Females
			Males	Females	Males	Females	Males	Females	Males	Females		
1	2	3	4	5	6	7	8	9	10	11		
Total	41,762	5,488	669	947	27	89	137	20	2,342	998		
Illiterate	16,365	4,674	468	829	18	89	75	20	1,171	962		
Literate (without educational level)	17,458	480	190	117	8	-	36	-	1,102	35		
Primary or Junior Basic	2,589	107	6	1	1	-	4	-	51	1		
Matriculation or Higher	3,792	133	2	-	-	-	15	-	15	-		
Technical diploma not equal to degree	17	1	-	-	-	-	-	-	-	-		
Non-Technical diploma not equal to degree	63	20	2	-	-	-	1	-	1	-		
University degree or post-graduate degree other than technical degree	1,342	59	1	-	-	-	6	-	2	-		
Technical degree or diploma equal to degree or post-graduate degree	145	14	-	-	-	-	-	-	-	-		
Engineering	6	-	-	-	-	-	-	-	-	-		
Medicine	54	12	-	-	-	-	-	-	-	-		
Agriculture	2	-	-	-	-	-	-	-	-	-		
Veterinary & Dairying	-	-	-	-	-	-	-	-	-	-		
Technology	1	-	-	-	-	-	-	-	-	-		
Teaching	82	-	-	-	-	-	-	-	-	-		
Others	-	-	-	-	-	-	-	-	-	-		

Miscellaneous Occupations

Educational levels	Workers												Non-workers			
	In Manufacturing other than Household Industry		In Construction		In Trade & Commerce		In Transport, Storage & Communications		In Other Services				Non-workers			
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females
12	13	14	15	16	17	18	19	20	21	22	23					
Total	4,387	649	3,682	285	8,149	269	6,757	20	15,612	2,211	56,398	84,378				
Illiterate	2,266	601	2,707	284	1,553	238	2,206	13	5,901	1,638	30,588	63,022				
Literate (without educational level)	1,794	47	783	1	5,294	31	2,678	6	5,573	243	16,998	17,129				
Primary or Junior Basic	204	1	87	-	630	-	536	-	1,061	104	6,163	3,363				
Matriculation or Higher	96	-	89	-	532	-	1,111	1	1,932	132	2,139	702				
Technical diploma not equal to degree	-	-	3	-	-	-	2	-	12	1	2	1				
Non-Technical diploma not equal to degree	-	-	-	-	5	-	5	-	49	20	12	6				
University degree or post-graduate degree other than technical degree	24	-	12	-	134	-	214	-	949	59	485	155				
Technical degree or diploma equal to degree or post-graduate degree	3	-	1	-	1	-	5	-	135	14	11	-				
Engineering	3	-	-	-	-	-	1	-	2	-	1	-				
Medicine	-	-	1	-	1	-	4	-	48	12	9	-				
Agriculture	-	-	-	-	-	-	-	-	-	2	-	-				
Veterinary & Dairying	-	-	-	-	-	-	-	-	-	-	1	-				
Technology	-	-	-	-	-	-	-	-	1	-	-	-				
Teaching	-	-	-	-	-	-	-	-	82	2	-	-				
Others	-	-	-	-	-	-	-	-	-	-	-	-				

1. Census of India 1961, Vol. XIV, Rajasthan, Part II-B(i), General Economic Tables, pp. 100-101.

Industrial Classification of Workers and Non-workers by Educational Levels in Rural Areas¹

Educational levels	Total workers		Workers							
	Males	Females	As Cultivators		As Agricultural Labourers		In Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantation, Orchards and allied acty.		At Household Industry	
			Males	Females	Males	Females	Males	Females	Males	Females
:	2	3	4	5	6	7	8	9	10	11
Total	78,890	49,266	57,293	39,397	626	220	1,891	328	1,263	8,484
Illiterate	65,676	48,591	49,621	38,902	584	220	1,422	326	11,198	8,398
Literate (without educational level)	10,602	593	6,855	459	41	-	325	2	946	79
Primary or Junior Basic	1,673	71	763	34	1	-	56	-	114	7
Matriculation & above	939	11	54	2	-	-	88	-	5	-

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Miscellaneous Occupation

Educational levels	Workers								Non-workers			
	In Manufactur- ing other than Household Industry		In Construction		In Trade & Commerce		In Transport, Storage and Communications		In Other Services		Males	Females
	Males	Females	Males	Females	Males	Females	Males	Females	Males	Females		
	12	13	14	15	16	17	18	19	20	21	22	23
Total	486	164	331	68	1,564	152	860	5	3,576	448	55,649	72,684
Illiterate	311	149	263	68	371	143	475	5	1,431	380	43,429	69,102
Literate (without educational level)	145	15	63	-	914	9	250	-	1,063	29	8,438	2,261
Primary or Junior Basic	26	-	4	-	221	-	80	-	408	30	3,684	884
Matriculation & above	4	-	1	-	58	-	55	-	674	9	98	27

1. Census of India 1951, Vol. XIV, Rajasthan, Part II-B(i), General Economic Tables, pp. 134-135.

CHAPTER IX

ECONOMIC TRENDS

LIVELIHOOD PATTERN

The Census Report of 1961 brought out the livelihood pattern of the working population only, classifying first, the total population into workers and non-workers. The new tables are helpful in correctly assessing the pattern of economic activities of the people and the future trends. According to these figures, out of the total population of 4,44,515 in Bikaner district 2,56,489 persons, or 57.7 per cent, lived in rural areas, while the rest were living in urban areas. The number of workers, as stated in the previous chapter, was 1,75,406 or 39.46 per cent of the population. Of the working population, 73.1 per cent were living in rural areas and only 26.9 per cent in urban areas. In case of rural population, as much as 49.9 per cent consisted of workers, while in urban areas only 25.1 per cent could be classed as workers. The number of male workers preponderated over that of female workers.

The occupational pattern, as detailed in the previous chapter, disclosed that about 56 per cent of the working population was engaged in cultivation, while 962 persons or 0.5 per cent were merely agricultural labourers. The workers engaged in mining, quarrying livestock, forestry, fishing, hunting, plantation, orchard and allied activities, numbered only 2,376, forming 1.4 per cent of the working population. Household industry provided employment to 24,087 persons, constituting 13.7 per cent of the total working population while the number of persons engaged in manufacturing activity, other than household industry was 5,686 (3.3 per cent). 4,356 persons (2.5 per cent) were engaged in construction, 10,134 (5.5 per cent) in trade and commerce, 7,642 (4.4 per cent) in transport, storage and communications and 21,847 (12.7 per cent) were engaged in other services.

The occupational pattern in Bikaner district is given in Appendix I.

PRICES

Prices of principal food crops in Bikaner showed no marked fluctuations during the period 1872 to 1909 except during years of famine or scarcity. In 1876, the price of *Bajra*, the staple food of the people, was 31.10 seers per rupee. In 1893, it rose to 20.59 seers per

rupee. Powlett¹ remarked in his *Gazetteer*, that the rate of 15 seers of *Bajra* per rupee, was considered so high as to tantamount to famine or scarcity conditions in the eyes of the people. The prices for succeeding years upto 1909, ranged between 11.10 seers and 20.39 seers per rupee, (except in bad years of 1897 and 1898 when it was 9.35 seers and 9.64 seers per rupee respectively). Quinquennial average price of *bajra* ranged from 15.58 seers to 17.65 seers per rupee, during the period 1873 to 1895. Gram and wheat were chiefly imported into the State. The price of gram ranged from 22.38 seers in 1894 to 8.80 seers per rupee in 1897.

As for the price of wheat, its quinquennial average varied from 13.89 seers per rupee during 1871-75 to 10.72 seers per rupee during 1876-80. The highest price of wheat was recorded at 7.49 seers per rupee in 1909 and the lowest at 14.81 seers in 1875, but the general average had been varying from 11 to 12 seers per rupee from 1873 to 1909. Taking the quinquennial average price of 1871-75 as base, a rise of 23 per cent was recorded during 1891-95.

The price of rice had ranged between 10.31 seers per rupee during 1873 and 4.21 seers per rupee during 1907. The rates had normally centred around 6 or 7 seers per rupee. But these were 41 per cent higher during 1891-95 from the quinquennial average price of 1871-75. No figures of prices of *moth*, which is largely consumed, are available for these years. It has, however, always been cheaper than *bajra*. The price of salt depended on its quality, the rate of duty and the cost of transport. Major Erskine² had pointed out, that prior to 1879 the supply of the local variety was considered sufficient and 43 to 74 seers of salt was procurable for a rupee, but, subsequently, it had been imported from Didwana and other sources in Jodhpur, and the prices varied between 11 seers and 20½ seers for a rupee. Taking the quinquennial average of 1871-75 as base, it recorded a rise of 451 per cent during 1891-95 period.

The general steadiness in the price level of foodgrains during this period was largely ascribed to better transport facility provided by the Railways, the first section of which was opened at the end of 1891. The benefits were specially noticeable in times of draught, when they brought in grains from the Punjab and Sind. Major K. D. Erskine pointed out that just before the famine of 1868-69, *moth* was selling at

1. Powlett, Capt. P. W., *The Gazetteer of Bikaner State*, 1874, p. 96.

2. Erskine, Major K. D., *Rajputana Gazetteers*, Vol. III-A, p. 349.

45 seers and *Bajra* at 35 seers for a rupee, while during that visitation, prices rose to 6 seers per rupee. On the other hand, the highest quotation during the famine of 1891-92 and the terrible calamity of 1899-1900, were between 8 and 9 seers per rupee.

The prices of foodgrains during most of the period between 1894 and 1900 were very high¹, due to the prevalence of famine in Bikaner and the adjacent States. The old stocks in the possession of traders were exhausted before the famine commenced, owing to successive bad years, and the price of *bajra* rose very high immediately after the failure of the *Kharif* crops. Foodgrains were, however, largely imported by rail and also by camels. The markets were well supplied and people did not feel any difficulty in obtaining grains against payment at any time.

The following table gives the quinquennial average retail prices of major foodgrains and salt during the period 1871 to 1902² :

(Seers per rupee)

Years	Rice	Wheat	Bajra	Arhar or tur	Gram	Salt
1871-75	8.93	13.89	15.87	N.A.	15.87	67.72
1876-80	6.46	10.72	17.65	N.A.	15.18	41.45
1881-85	6.39	12.33	17.48	N.A.	17.57	11.81
1886-90	7.03	11.58	15.61	8.20	16.84	13.40
1891-95	6.35	11.30	15.58	9.72	18.05	12.21
1896-1900	5.24	10.05	11.29	8.23	11.29	11.29
1901-05	6.15	11.63	14.19	8.39	16.46	12.46
1906-09 ³	5.33	8.79	11.90	6.15	13.25	19.70

During the year 1924-25, owing to poor harvests, the prices of all the foodgrains, except *Moth*, stood at a high level, compared to what they were at any time during the previous years. These were as follows during 1923-24 and 1924-25⁴ :

1. Administration Reports of Bikaner State for the years 1894 to 1900.
2. Prices and Wages in India, Calcutta, 1900.
3. Only four years' average.
4. Administration Report of the Bikaner State for the year 1924-25.

(Seers per rupee)

Commodity	During the last quarter of the year	
	1923-24	1924-25
1. Wheat	8	6
2. Gram	11	17
3. Millet	9	9
4. Moong	N.A.	6
5. Moth	12	9

Several measures were taken by the Government to check the rise of prices during the scarcity period and large scale relief measures were adopted¹. State shops, which sold imported grain to the poor at subsidised rates, were opened during 1918-19. In order to restrict undue rise in prices and prevent profiteering, co-operative sale was organised and a grain market was also opened in Bikaner city.

During the years 1939-40 and 1940-41, inspite of the war conditions disturbing the normal channels of trade in the country, no special steps were taken to regulate the distribution of foodgrains and other essential articles². The prices of wheat and gram showed a tendency to rise, but those of *bajra* and sugar declined. There was undue fluctuation in the prices, but as there was no ban on the export of foodgrains in the neighbouring states, especially in the Punjab, the stocks in Bikaner continued to be replenished by imports from neighbouring *mandis* and, as a result, the public requirements were met in the normal way. Conditions, however, changed during the year 1941-42 and it became necessary to adopt rigid measures for controlling the supply and prices of foodgrains. The Foodgrains Control Order, imposed in British India, was made applicable to the State on 25th July, 1942. This Order, made it incumbent upon the wholesale dealers of principal foodgrains to obtain licences for purchase, sale or storage of these commodities.

The Foodgrain Futures and Option Prohibition Order, 1942, was also issued, under which all future transactions and options as regards wheat, gram, *Bajra*, *moth* and jowar were prohibited. Since the

1. Four Decades of Progress in Bikaner, p. 30.
2. Administration Report of the Bikaner State for the years 1939-40 to 1941-42.

then Bikaner State was deficient in foodgrains and some other essential commodities, the export of all the important foodgrains, sugar, charcoal and all kinds of wood was also prohibited in order to conserve their existing stocks.

The average annual retail prices of foodgrains and sugar during the years 1939 to 1942 were as follows¹ :

(Seers and Chhatanks per rupee)

Commodity	1939-40	1940-41	1941-42
1. Wheat			
(a) I quality	9-5	9-0	6-8
(b) II quality	10-0	9-7	6-13
2. Gram	9-10	11-5	8-4
3. Bajra	9-3	13-13	8-0
4. Guar	11-15	14-13	10-1
5. Sugar			
(a) I quality	2-5	2-9	1-15
(b) II quality	2-7	2-13	2-3
(c) Danedar	2-10	2-10	2-1

The retail prices of principal foodgrains at Bikaner from 1952 to 1961 are given below² :

(Rupees per maund)

Year	Wheat	Barley	Gram	Jowar	Bajra	Maize
1952	19.41	14.39	15.79	15.57	17.57	17.75
1953	17.78	13.46	15.94	11.16	13.25	15.00
1954	14.45	8.87	11.16	8.65	6.69	10.00
1955	13.44	7.25	7.84	7.05	9.69	7.00
1956	16.23	12.01	11.73	9.06	13.31	N.A.
1957	17.10	13.12	12.58	12.61	15.99	15.17
1958	19.06	13.81	13.47	12.49	15.07	12.33
1959	20.66	12.31	13.58	13.81	15.42	14.17
1960	18.27	12.55	14.59	14.04	15.86	12.46
1961	17.33	13.55	16.09	13.98	17.08	16.00

1. Administration Report of Bikaner State for 1939-42, p. 41.

2. Statistical Abstract, Rājasthān, yearly volumes for various years.

Since the year 1952, the prices of all foodgrains had been showing a tendency to fall, till 1957, when they again started rising, a tendency which continued during the whole of the Second Five Year Plan period.

No record of retail prices of foodgrains is available after 1961. However, the Directorate of Economics and Statistics, Government of Rājasthān has been publishing the farm (harvest) prices¹ of certain important crops in the district, which were as follows during the years 1960-61 to 1965-66²:

(Rs. per quintal)

Commodity	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
Jowar	46.22	33.09	33.49	34.83	N.A.	52.33
Bajra	49.57	45.33	38.31	50.45	47.07	73.75
Wheat	52.92	47.40	42.87	57.60	64.09	77.50
Barley	39.52	34.83	33.09	36.54	N.A.	—
Gram	44.21	42.71	46.89	49.03	64.11	79.33
Sesamum	85.07	87.08	79.84	N.A.	134.22	197.50

No uniform tendency is discernible in the price levels of these commodities. The price of *jowar* showed a sharp decline in 1961-62, which continued till 1963-64, when it again started rising. *Bajra* has kept up a steady level, but for a sharp rise in 1965-66 and a sharp fall in 1962-63. Wheat was pegged up high in 1960-61, but showed a rapid fall in 1961-62 and 1962-63 and rose again sharply in 1963-64, a tendency which continued thereafter. Barley recorded a falling trend since 1961-62. Gram prices remained more or less steady till 1962-63 when a rising trend started. The same was true of sesamum, except that it showed a sharp fall in 1962-63. The main factor, governing these prices, has been the nature of rainfall in the area and in the country, as a whole, during a particular year.

1. The farm harvest price is the average wholesale price, at which the commodity is sold by the producers to the traders, at the village site, during the harvest period.

2. Statistical Abstract, Rājasthān, yearly volumes for various years.

WAGES

Captain Powlett observed in 1874¹ that the normal rates in Bikaner at which skilled labour was available, was four annas (25 paise) a day, while the daily rate for unskilled labour was only two annas (12 paise). In the Rājputāna Gazetteers, compiled by Major K. D. Erskine in 1908, it is recorded thus "Some thirty years ago, it was reported that four annas a day for skilled, and two annas for unskilled labour were the normal rates of wages in Bikaner, and, as regards the latter, there seems to have been little or no variation. The ordinary day labourer still receives about two annas and the syce or horse keeper three; the wages of others appear to have increased, namely those of blacksmith from four to five, and of the carpenter and mason from four to six annas. As elsewhere in Rājputāna, the village servants such as barbers, potters and shoemakers are usually paid in kind at harvest time".

No separate record of wages, for each category of workers prevailing in the erstwhile Bikaner State, is available, except what is mentioned in the Annual Administration Reports. The rates of daily wages as recorded in the relevant administration reports are given below :

Year	Wages ranging					
	from			to		
	Rs.	As.	Ps.	Rs.	As.	Ps.
1924-25	0	4	0	1	8	0
1926-27	0	5	0	1	8	0
1929-30	0	4	0	1	4	0
1930-31	0	4	0	1	4	0
1932-33	0	4	0	1	0	0
1939-40	0	2	0	0	5	0
	0	12	0	1	4	0
						Semi-skilled worker
						Skilled worker
1941-42	0	3	0	0	10	0
	0	12	0	1	8	0
						Semi-skilled worker
						Skilled worker
1942-43	0	8	0	1	0	0
	1	4	0	2	0	0
						Skilled worker
1945-46	1	0	0	1	8	0
	2	0	0	3	0	0
						Unskilled worker
						Skilled worker

1. Powlett, Captain P. W., *op. cit.*, p. 95.

With the upward trend of prices, the wages of labour also increased from time to time. These, however, as usual did not keep pace with the increase in the prices, particularly because there were no organised trade unions among the workers, through which they could effectively press their demand for such increases. After Independence, under the Minimum Wages Act 1948, industry-wise minimum wages have been fixed by the Rājasthān Government. These are given in Appendix II.

STANDARD OF LIVING

No data is available to study the living standard of the people of the area, except the Follow-up Survey of the district, conducted by the Reserve Bank of India and two village surveys done by the Census Department. According to the Rural Credit Follow-up Survey undertaken by the Reserve Bank of India, during 1956-57, the average annual expenditure per cultivating family was about Rs. 559. The following figures indicate the expenditure on recorded items per family¹ :

S. No.	Items	Expenditure (Rs.)	Percentage of total expenditure
1.	Constructing and repairs of residential and other houses	31	5.5
2.	Purchase of domestic utensils etc.	8	1.5
3.	Purchase of clothes	258	46.1
4.	Death ceremonies	71	12.7
5.	Marriage & other ceremonies	165	29.5
6.	Medical expenses	6	1.3
7.	Educational expenses	10	1.7
8.	Litigation expenses	10	1.7
Total		559	100.0

1. Rural Credit Follow-up Survey, 1956-57, General Review Report, Reserve Bank of India, 1960, p. 149.

The following table indicates the sources of finance for such family expenditure¹ :

Item	Average expenditure per family (Rs.)	Amount financed by each source as percentage of total expenditure		
		Owned funds	Sale of assets	Borrowings
1. Purchase, construction and repairs of residential and other houses	31	90.5	—	9.5
2. Purchase of durable consumers' goods	266	90.3	0.1	9.6
3. Death, marriage and other ceremonies	236	43.0	1.7	55.3
4. Medical, educational and litigation expenses	26	91.7	0.4	8.0

An important feature of special significance is that borrowings financed a substantial portion of the expenditure on the death, marriage and other ceremonies. Further, it was found that in Bikaner, big and large cultivators did not enjoy a demonstrably higher standard of living than medium and small cultivators. This indicates that large scale farming is not very paying in the district.

The table below indicates the extent of debt per family, as observed during the survey²:

Category of cultivators	(Amount in Rupees)	
	As on	
	1.5.56	30.4.57
1. Big	424	956
2. Large	586	885
3. Medium	414	651
4. Small	335	606
6. All (average)	442	702

1. *Rural Credit Follow-up Survey, op. cit.*, pp. 163-168.

2. *Ibid.*, p. 40.

An increase was discernible in the level of debt per family, among all types of cultivators. The survey also throws sufficient light on the average borrowings per family. This is reflected in the following table¹ :

Type of cultivators	Amount (Rs.)
1. Big	554
2. Large	352
3. Medium	327
4. Small	284
5. All (average)	322

During the 1961 Census, the socio-economic surveys of Mukam and Mudh (Marh) villages were undertaken and it was found that very few families were able to save substantially and some of them, in fact, had to incur debts for the purchase of cattle, seeds and agricultural implements. Besides, most of them had to borrow money for social functions such as marriage and death ceremonies. Many of them had to incur debts even for buying foodgrains and clothes during lean years.

EMPLOYMENT

An Employment Exchange was established at Bikaner in the year 1946, with a skeleton staff. Since then, with the adoption of new schemes by the department, the staff of the Exchange has also increased. Employment Market Information Programme was launched in the district in the year 1961. At present, the staff of the Employment Exchange consists of one District Employment Officer, one Assistant Employment Officer (v. G.) and a Junior Employment Officer, besides one U. D. C., 6 L. D. Cs., one guide and 4 class IV servants. It is very suitably situated in Chopra Katla Building, in Rani Bazar, at a distance of about half a mile from the Railway station and bus stand. It caters to Churu district also². Though people are aware of the assistance offered by the Employment Exchange, the registration is voluntary. Hence, the registration at the Employment Exchange can, at best, be only rough estimate of the unemployed persons, seeking gainful occupation. The number of persons registered

1. *Rural Credit Follow-up Survey, op. cit.*, p. 92.

2. A separate Employment Exchange for Churu district has since been established.

and placed in employment through the Bikaner Exchange as also the employers using its services, during the past few years were as follows¹ :

(Number)

Year	Applicants registered	Placings made	Employers using the Employment Exchange (monthly average)
1957	4,813	607	23
1958	571	999	26
1959	6,933	1,524	39
1960	7,050	997	34
1961	7,642	1,225	396
1962	6,008	1,065	430
1963	6,771	1,158	491
1964	8,288	1,587	380
1965	8,092	1,430	503
1966	8,289	1,258	403

The following table indicates the occupational classification of the applicants on the live register of the Employment Exchange during 1961 to 1966 :

(Number)

Category	1961	1966
1. Professional, Technical & related workers	172	143
2. Administrative, Executive and Managerial workers	14	27
3. Clerical and related workers	24	4
4. Farmers, fishermen, hunters, loggers and related workers	17	3
5. Miners, quarrymen and related workers	—	1
6. Workers in transport & communications	84	63
7. Craftsmen, production process workers and labourers not classified	54	83
8. Services, sports and recreation workers	172	138
9. Workers not classified by occupations	2,512	2,480
Total	3,149	2,948

1. Statistical Abstract, Rājasthān, yearly volumes for various years.

The table below indicates the number of vacancies notified and filled up by the various classes of employers. It will be noted that the largest number of vacancies notified and filled up were in the State Government employ, followed by the Central Government departments :

(Number)

Year	Vacancies notified and filled by									
	Central Govt.		State Govt.		Quasi Govt.		Private		Total	
	Noti- fied	Filled	Noti- fied	Filled	Noti- fied	Filled	Noti- fied	Filled	Notified	Filled
1957	96	100	595	507	32	—	1	—	724	607
1958	141	130	999	863	9	2	30	1	1,179	996
1959	185	145	1,485	1,133	86	33	48	3	1,804	1,314
1960	126	105	1,057	730	238	147	29	11	1,450	993
1961	371	323	850	615	366	251	94	22	1,681	1,211
1962	378	114	1,344	727	312	196	50	16	2,084	1,049
1963	268	109	1,398	979	210	48	142	21	2,018	1,157
1964	330	168	1,655	1,149	376	218	130	11	2,491	1,546
1965	114	81	1,319	1,053	394	250	90	10	1,917	1,394
1966	301	226	1,193	563	456	446	125	19	2,075	1,254

The scheme of collection of employment market information was introduced in Bikaner district in 1961. Under this scheme, information is collected by the Employment Exchange about the supply and demand of man power and also about various factors that affect employment conditions from time to time, on the basis of quarterly returns received from the employers under the Establishment Reporting System. According to the first report on Bikaner Employment Market, for the quarter ending March 1961, it appeared that during the off-season many people in rural areas take to weaving of *khadi* and woolen blankets. Among the organised industries, sheep breeding, wool-baling and pressing, clay and glass work, metal industries and coal and gypsum industries offer substantial employment opportunities to the people. Many women workers are also engaged in these industries.

COMMUNITY DEVELOPMENT

Though the Community Development Programme was launched in the State in October 1952, it was extended to Bikaner district only in 1955, when a National Extension Service block was opened at Naukha, covering 122 villages, with an area of 3,785 sq. km. and a population of 83,964. It became a II Stage Block in April 1960. Another pre-extension block was opened at Kolāyat, in June 1958 (converted into I Stage in April 1959) covering an area of 7,948 sq. km. extending over 185 villages with a population of 47,999. In October 1959, two more shadow blocks were opened at Bikaner and Lunkaransar, covering areas of 8,997 sq. km. and 6,372 sq. km. of 173 and 171 villages with populations of 71,297 and 53,928 respectively. Bikaner was converted into a Pre-Extension block in May 1960 and entered I Stage in April 1961, while Lunkaransar was made a Pre-Extension block in October 1962.

Appendix III indicates the physical achievements under some important heads, in the various Panchayat Samitis, during the year 1965-66.

PLANNING AND DEVELOPMENT

First Five Year Plan

The main objective of plan schemes under the First Five Year Plan was to make good the deficiency in the food resources of the State and to bring an all-round economic development in the rural areas, through Community Development and National Extension Service. The district-wise break-up of expenditure of the First Five Year Plan is not available.

Second Five Year Plan

The Second Plan aimed at providing larger increase in employment, investment and production, the building-up of basic industries and revitalisation of rural economy. While the initiation of the Community Development Blocks was an important achievement of the First Plan in the rural sector, the introduction of Democratic Decentralisation was a hall-mark of the Second Plan. The following table indicates the sector-wise expenditure on various schemes operating in the district during the Second Plan period¹:

1. *Second Five Year Plan, Progress Report, Rajasthan. 1956-61, pp. Lxxxiii-Lxxxv.*

Sector	Expenditure (Rs. in lakhs)
1. Agriculture & Community Development	
(i) Agriculture	8.47
(ii) Consolidation of holdings	8.24
(iii) Animal Husbandry	26.74
(iv) Co-operation	3.82
(v) Forests and Soil Conservation	2.56
(vi) C.D. & N.E.S.	17.24
2. Irrigation & Power	
(i) Power	154.11
3. Industries & Mining	
(i) Industries	6.17
4. Communication	
(i) Roads	16.42
5. Social Services	
(i) Education	71.49
(ii) Medical & Health	14.11
(iii) Ayurved	0.80
(iv) Water supply	40.79
(v) Housing	12.90
(vi) Labour and labour welfare	2.40
(vii) Social Welfare and Welfare of backward classes	5.89
6. Miscellaneous	
(i) Statistics	0.08
Total	392.23

The year-wise break-up of expenditure is given below :

Year	Expenditure (Rs. in lakhs)	Percentage
1956-57	24.97	6.4
1957-58	49.96	12.7
1958-59	85.44	21.8
1959-60	107.42	27.4
1960-61	124.44	31.7
Total	392.23	100.00

The total expenditure incurred during the Second Plan on all the schemes operating in the district, thus, came to Rs. 392.23 lakhs. The per capita expenditure, on the basis of 1961 population, worked out at Rs. 88.34 as against Rs. 51.15 for the State as a whole.

Two urban water supply schemes for Bikaner and Naukha were taken up. Total expenditure on them during Second Plan period came to Rs. 29.47 lakhs and Rs. 0.10 lakhs, as against estimated costs of Rs. 39.34 lakhs and Rs. 2.65 lakhs respectively. Bikaner Scheme, when completed, was designed to benefit 1.92 lakhs of population.

Third Five Year Plan

To maintain the tempo of development, created in the Second Five Year Plan, a comparatively bigger Third Five Year Plan, involving an outlay of Rs. 236 crores in Rājasthān, was launched. The concept of planning from below was given a tangible shape for the first time in the drawing up of the Third Five Year Plan of Rājasthān and the Panchayat Samitis and Zila Parishads were also associated in its formulation. Special emphasis was laid on agriculture and animal husbandry, irrigation, public works programmes, labour incentives, rural water supply and education. The following table indicates the expenditure incurred on the various schemes, operating in the district, during the Third Five Year Plan¹:

S. N.	Sectors	Expenditure (Rs. in lakhs)
1. Agricultural Programmes		
(i) Agricultural Production		0.41
(ii) Minor Irrigation		0.96
(iii) Soil Conservation		1.61
(iv) Animal Husbandry		21.76
(v) Dairying & Milk supply		0.20
(vi) Forests		0.39
(vii) Fisheries		0.
2. Co-operation & Community Development		
(i) Co-operation		3.39
(ii) Community Development		22.44
(iii) Panchayats		5.85

1. *Tratiya Panchvarshiya Yojna-Pragati Prativedan*, 1961-66, pp. 235-240.

S. N.	Sectors	Expenditure (Rs. in lakhs)
3. Industries and Mining		
(i) Mineral Development		22.17
(ii) Village & small industries		8.25
4. Transport & Communications		
(i) Roads		9.66
5. Social Services		
(i) General Education & Cultural Programmes		64.96
(ii) Technical Education		23.38
(iii) Modern Medicine		88.79
(iv) Ayurved		1.89
(v) Water supply		36.53
(vi) Housing		6.24
(vii) Welfare of backward classes		9.29
(viii) Social Welfare		0.95
(ix) Labour & Labour Welfare		1.71
6. Miscellaneous		
(i) Statistics		1.15
(ii) Information & Publicity		0.49
(iii) Mandis		6.16
Total		338.64

A perusal of the above table indicates that out of the total expenditure of Rs. 338.64 lakhs on various schemes, operating in the district, during the Third Plan period, social services like modern medical facilities, general education and cultural programmes and water supply schemes, got special treatment, claiming expenditure amounting to Rs. 88.79 lakhs, Rs. 64.96 lakhs and Rs. 36.53 lakhs respectively. The year-wise break-up of expenditure was Rs. 81.24 lakhs during 1961-62, Rs. 75.02 lakhs in 1962-63, Rs. 67.40 lakhs in 1963-64, Rs. 52.82 lakhs in 1964-65 and Rs. 62.16 lakhs in 1965-66. The per-capita expenditure in Bikaner district, during the whole Plan period came to Rs. 77.27, as against Rs. 105.35 for Rājasthān as a whole..

APPEN

Occupational Pattern in

Occupational Category	Total			
	Persons	Percentage	Males	Females
1	2	3	4	5
A. Total Workers	1,75,406 (39.57) ²	100.0	1,20,652	54,754
1. Cultivators	98,306	56.0	57,962	40,344
2. Agricultural Labourers	962	0.5	653	309
3. Mining, Quarrying, Live-stock, Forestry, Fishing, Hunting, Plantation, Orchards and allied activities	2,376	1.4	2,028	348
4. Household Industry	24,087	13.7	14,605	9,482
5. Manufacturing other than household industry	5,686	3.3	4,873	813
6. Construction	4,366	2.5	4,013	353
7. Trade and Commerce	10,134	5.5	9,713	421
8. Transport, Storage and Communications	7,642	4.4	7,617	25
9. Other Services	21,847	12.7	19,188	2,659
B. Non-workers	2,69,109 (60.43) ²		1,12,047	1,57,062

1. Census of India, 1961, Rajasthan, District Census Handbook, Bikaner District.
2. Figures in brackets indicate percentages to the total population.

DIX I

Bikaner District, 1961¹

Rural				Urban			
Persons	Percentage	Males	Females	Persons	Percentage	Males	Females
6	7	8	9	10	11	12	13
1,28,156	100.00	78,890	49,266	47,250	100.00	41,762	5,488
96,690	75.4	57,293	39,397	1,616	3.4	669	947
846	0.7	626	220	116	0.3	27	89
2,219	1.7	1,891	328	157	0.3	137	20
20,747	16.3	12,263	8,484	3,340	7.1	2,342	998
650	0.5	486	164	5,036	10.7	4,387	649
399	0.3	331	68	3,967	8.4	3,682	285
1,716	1.3	1,564	152	8,418	17.8	8,149	269
865	0.7	860	5	6,777	14.3	6,757	20
4,024	3.1	3,576	448	17,823	37.7	15,612	2,211
1,28,333		55,649	72,684	1,40,776		56,398	84,378

APPENDIX II

Wages fixed under Minimum Wages Act
(1969)

S. No.	Type of occupation/class of workers	Wages
1.	Employment in woollen, carpet making or shawl weaving establishments	
(i)	Time rate manual occupations	Minimum time rate, Rs. 60.00 per month or Rs. 2.31 per day inclusive of paid weekly holiday
(ii)	Piece rate occupations:	
(a)	Yarn Opener	15 paise per kg. (hand spun and upto 30 counts) 30 paise per kg. (mill spun and upto 40 counts) 50 paise per kg. (mill spun and upto 70 counts) Re. 1 per kg. (mill spun and above 70 counts)
(b)	Spinner	75 paise per kg. of wool spun
(c)	Washerman	Rs. 100 per month
(d)	Dyer	Rs. 125 per month
(e)	Weaver	
	Plain Carpet (one colour)	
(1)	Upto 40,000 knots per square yard	Rs. 5.25 per sq. yard
(2)	Over 40,000 knots per sq. yard	Rs. 5.75 per sq. yard
	Desigred Carpet	
(1)	Upto 30,000 knots per sq. yard upto 15 colour	Rs. 6.50 per sq. yard
(2)	From 30,000 knots to 40,000 knots per sq. yard upto 20 colours	Rs. 7.50 per sq. yard

APPENDIX II (contd.)

S. No.	Type of occupation/class of workers	Wages
	(3) Over 40,000 knots per sq. yard for more than 20 colours	Rs. 8.75 per sq. yard.
	(4) Clippers	Rs. 120 per month or 31 paise per sq. yard
	(5) Embossers	Rs. 135 per month
	(6) Carpet <i>mistries</i>	Rs. 125 per month
2.	Employment in rice, flour or <i>dal</i> mills :	
(i)	Skilled workman	Rs. 100 per month
(ii)	Semi-skilled workman	Rs. 80 per month
(iii)	Unskilled workman	Rs. 60 per month
(iv)	Clerical staff	Rs. 100 per month
3.	Employment in any Tobacco (including <i>bidi</i> making) manufacturing :	
(i)	<i>Bidi</i> roller	Rs. 2 per 1000 <i>bidies</i> or Rs. 85 per month
(ii)	<i>Bidi</i> sorter and checker (full time worker)	Rs. 100 per month
(iii)	Bundle wrapper and packer	Rs. 85 per month or Rs. 2.00 per 1000 bundles
(iv)	Snuff making	Rs. 2.31 per day or Rs. 60 per month
4.	Employment in oil mills :	
(i)	Unskilled workman (Male & female)	Rs. 60 per month or Rs. 2.31 per day, inclusive of weekly day of rest
(ii)	Semi-skilled workman	Rs. 85 per month
(iii)	Skilled workman	Rs. 100 per month
5.	Employment under local authority :	
(i)	Unskilled worker	Rs. 60 to Rs. 65 per month
(ii)	Semi-skilled worker	Rs. 85 per month
(iii)	Skilled worker	Rs. 100 per month
(iv)	Office staff	Rs. 85 to Rs. 125 per month
(v)	Field staff	Rs. 100 per month.
(vi)	Traffic staff	Rs. 100 to Rs. 150 per month

APPENDIX II (contd.)

S. No.	Type of occupation/class of workers	Wages
6.	Employment on the construction or maintenance of roads or in building operations :	
	(i) Unskilled workman	Rs. 60 to Rs. 65 per month
	(ii) Semi skilled workman	Rs. 80 to 90 per month
	(iii) Skilled workman	Rs. 100 to 150 per month
7.	Employment in stone breaking or stone crushing :	
	(i) Unskilled workman	Rs. 60 to 65 per month
	(ii) Semi-skilled workman	Rs. 80 to 90 per month
	(iii) Skilled workman	Rs. 100 to 125 per month.
8.	Employment in mica works (other than mica mining) :	
	(i) Unskilled worker	Rs. 60 per month
	(ii) Dresser & sorter	Rs. 75 per month
	(iii) Clerk	Rs. 100 per month
	(iv) Cutter	40 paise per kg. of mica cut, but not less than Rs. 60 per month.
9.	Employment in Public Motor Transport :	
	(i) Unskilled workman	Rs. 60 per month
	(ii) Semi-skilled workman	Rs. 85 per month
	(iii) Skilled workman	Rs. 100 per month
	(iv) Traffic staff	Rs. 65 to 100 per month
	(v) Office staff	Rs. 100 per month
	(vi) Inspecting staff	Rs. 100 per month
10.	Employment in wool cleaning and pressing factories :	
	(i) Unskilled workman	Rs. 60 per month
	(ii) Semi-skilled workman	Rs. 80 per month
	(iii) Skilled workman	Rs. 100 per month
11.	Employment in cotton ginning, pressing and baling establishments :	
	(i) Unskilled workman	Rs. 60 per month
	(ii) Semi-skilled workman	Rs. 80 per month
	(iii) Skilled workman	Rs. 100 per month.
12.	Employment in Printing Presses :	
	(i) Unskilled workman	Rs. 60 per month or Rs. 2.31 per day, inclusive of weekly holiday.
	(ii) Semi-skilled workman	Rs. 80 per month
	(iii) Skilled workman	Rs. 100 per month

APPENDIX II (contd.)

S. No.	Type of occupation/class of workers	Wages
13.	Employment in Salt Industry :	
	(i) Manufacturing Operations	Rs. 1.75 per day, per adult worker, male or female, inclusive of weekly days of rest.
	(ii) Extraction and storage	85 paise per 100 cft.
	(iii) Heaping, washing & loading into trucks, wherever carried on jointly by the same set of workers	Rs. 2 per day for an adult worker, male or female, exclusive of weekly days of rest.
	(iv) Despatch operations	Rs. 6.31 per 156 bags or 145 quintals or Rs. 2 per day.
	(a) Weighting & loading into wagons	Rs. 12.31 per 156 bags or 145 quintals or Rs. 2 per day.
	(b) Sewing	Rs. 1.75 per day per adult worker exclusive of weekly days of rest.
	(v) General—for pumping-men or <i>mistris</i>	Rs. 2.50 per day per adult worker, exclusive of weekly days of rest.
	(vi) For other operations or occupations, not described.	Rs. 1.75 per day per adult worker, male or female, exclusive of weekly days of rest.

APPENDIX III
Physical Achievements of the Panchayat Samitis in Bikaner District

1965-66								
S.No.	Items	Units	Naukha	Kolayat	Bikaner	Ljnkansar	Total	
1	2	3	4	5	6	7	8	
1.	Peoples' Participation	Rs. in thousands	—	8	7	—	15	
	Agriculture							
2.	Fertilisers distributed	Quintals	37,673	—	25	—	37,698	
3.	Improved seeds distributed	"	20	990	54	50	1,114	
4.	Agricultural implements distributed	No.	—	348	27	116	491	
5.	Agricultural demonstrations held	"	—	8	—	4	12	
6.	Contour bundings	Hectares	10,725	9,304	23,321	430	43,778	
7.	Distribution of fruit plants	No.	10	15	50	—	75	
	Animal Husbandry							
8.	Pedigree animals distributed	"	8	5	391	34	438	
9.	Improved birds distributed	"	1	2	—	—	3	
	Co-operation							
10.	New co-operative societies organised	"	1	2	2	1	6	
11.	Membership	"	40	816	234	986	2,076	
	Social Education							
12.	Libraries opened	"	—	1	2	—	3	
13.	Women societies opened	"	—	1	6	—	7	
14.	Adult education centres opened	"	4	22	64	—	80	
15.	Adults made literate	"	23	370	488	—	881	
16.	Youth clubs started	"	1	1	6	—	8	
	Communication							
17.	Katcha roads constructed	Furlongs	—	40	35	—	75	

Source : Quarterly Progress Reports, Development Department, Rajasthan, Jaipur.

CHAPTER X

GENERAL ADMINISTRATION

HISTORICAL BACKGROUND

The administrative history of the area can be traced only from the 15th century A. D., when the State of Bikaner was founded by Rao Bika, son of Rao Jodha of Jodhpur. He had moved from Jodhpur with civil and military staff and took over the territory from the Jats and other tribes. The main concern of rulers of those days was annexing and extending their territories and getting revenue out of them rather than setting up proper system of administration. The highest offices were sometimes bestowed on the highest bidders who could pay most to the royal coffers through exploitation and fleecing of the *ryots*, rather than to persons of ability and integrity. This was the general practice in the chaotic times of some of the predecessors of Maharaja Dungar Singh, who succeeded to the Bikaner throne in 1572 A.D. During his reign, the State was divided into districts and tahsils and regular courts of law were established. The duties of tahsildars, *thanedars* and other officials were defined and rules of procedure for criminal courts were framed. The administration was run with the assistance of the *Panchayats* (Administrative Councils), wherein all important matters were decided. The members constituting the *panchayats* were assured of non-interference.

Memorable reforms in the administrative structure were brought about by Maharaja Ganga Singh, who reigned from 1887 A.D. to 1943 A.D. It was for the first time that the State Government thought of giving some consideration to development schemes for the welfare of the public. A proper Secretariat was organised and powers were further decentralised. The Bikaner Chief Court, with a Chief Judge and two other Judges to look after judicial administration, was established in 1910 A.D. It was raised to the status of a High Court of Judicature in the year 1922 A.D. After the advent of Gang Canal in 1927 A.D., a major change in the constitution of administrative divisions was effected and the whole of Bikaner State territory was divided into two divisions viz., Sadar division and Gangānagar division, each headed by a Revenue Commissioner, who exercised administrative control over the *Nazims* and tahsildars responsible for administration of the respective *Nizamats* and tahsils.

On 30th March, 1949 the State of Bikaner merged into the United State of Greater Rājasthān. Consequently, the area covered by the State of Bikaner was divided into three separate districts viz., Bikaner, Gangānagar and Churu. Each district was headed by a District Officer called Collector. The district was further divided into sub-divisions, tahsils, *Girdawar* circles and *Patwar* circles, for administrative purposes.

PRESENT PATTERN

At present, the district of Bikaner consists of two sub-divisions, namely Bikaner north and Bikaner south with headquarters of both at Bikaner. Bikaner north sub-division comprises Lunkaransar, and Bikaner tahsils while Bikaner south sub-division is made up of Kolāyat and Naukha tahsils.

At the head of the district is the Collector, who is the pivot round whom the district administration revolves. With the abolition of the posts of the Divisional Commissioners, the responsibilities and duties of the Collector have increased manifold. He is not only the head of the revenue department in the district but is also expected to supervise and co-ordinate the working of other departments. He is also the District Magistrate and is responsible for the maintenance of law and order in the district. At the same time, the Collector is the *Ex-officio* District Development Officer and is intimately connected with the development activities of all other departments, including local bodies. Besides, he is also the head of the district treasury with the Treasury Officer as its immediate head and is ultimately responsible for due accounting of all receipts and disbursements on behalf of the Government, as for the safe custody of cash, stamps and securities in the treasury. The Collector is also the *ex-officio* chairman of various important committees at the district level. Thus, the Collector continues to occupy a pivotal position in the administration of the district and its development.

Land revenue administration, including its management, still demands the major attention and considerable time of the Collector. As the officer responsible for the collection of land revenue and other Government dues, he has to ensure that they do not accumulate. As District Records Officer, he has to see that land records, which constitute the basis of tenancy and other rights of the cultivators, are kept up-to-date and in the proper form. As custodian of Government

property including land, it is his duty to prevent encroachments. He has to administer the Land Revenue Act in its various facets, so that the wheels of rural life run swiftly and smoothly. He supervises the working of Revenue Courts in his capacity as a court of appeal and reference.

As District Magistrate, the Collector is charged with the duty of maintenance of law and order in his region with the help of the Superintendent of Police. He exercises administrative control over the Magistrates posted in the district. Any ugly law and order situation has to receive his immediate attention.

With the initiation of the Five Year Plans, development work in the district has assumed a great significance. The Collector, as stated above, has to keep a vigilant watch over all development projects in the district, whichever may be the department responsible for their execution. It is, however, his special responsibility to ensure successful functioning in his district of the scheme of Democratic Decentralisation, which Rājasthān was the first State to adopt, with its three tier system viz., the *Panchyats*, the Panchayat *Samitis* and the Zila Parishad. To bring about an effective co-ordination among them and to ensure that representatives of the people, who mainly constitute these democratic bodies and the executive officers, who are employees of the State Government but charged with the responsibility of carrying out the behests of these elected representatives, work as a team and as parts of a well oiled machine, demand of him the highest qualities of tact and leadership. He is the District Development Officer and has to prove true to his designation. A Deputy District Development Officer, who is also the Secretary of the Zila Parishad, assists him in the discharge of these onerous but exciting duties.

In the line of authority, directly subordinate to the Collector are two Sub-Divisional Officers, stationed at Bikaner and designated as Sub-Divisional Officer, Bikaner north and Sub-Divisional Officer, Bikaner south. The Sub-Divisional Officers exercise revenue, magisterial and executive powers within their respective jurisdictions.

Under the Sub-Divisional Officers are four tahsildars assisted by *naib-tahsildars*. Tahsildars have functions similar to those of the Sub-Divisional Officers and they exercise them within their respective jurisdictions. The tahsils are further divided into *Girdawar* circles, each under the charge of a revenue inspector or *Kanungo*. The *Girdawar*

circles are further sub-divided into *Patwar Halkas*, being looked after by the *Patwaris*, as their heads. The *Patwari* is required to maintain the land records and to report any untoward happening in his *Haqa* to the higher authorities. The actual collection of land revenue is also done by him. Within the district, the *Patwar* circles form the basic units of revenue administration.

In view of endemic nature of famines in Bikaner district, a post of Additional Collector was created on a temporary basis in March, 1966, as the over-all supervision of famine relief work rests with the Collector.

In the horizontal line of the district administration, the special importance of Superintendent of Police cannot be over-emphasised. Both the Collector and the Superintendent of Police work in close co-ordination for the maintenance of law and order within the district.

With the change of emphasis in district administration from mere collection of revenue and maintenance of law and order to welfare and development activities, the agencies representing the departments connected with the developmental and welfare activities have assumed greater importance. In the horizontal line of administration, the district officers-in-charge of agriculture, irrigation, education, industries, animal husbandry and poultry, public works etc., are styled as District Level Officers. A meeting of all the District Level Officers is summoned by the Collector once a month to discuss the co-ordination of policies, working of the programmes and difficulties, if any, and draw plans for future action. The Collector presides over these meetings.

The judicial matters are looked after by the District and Sessions Judge, who is the highest judicial authority in the district. He exercises supervision over the working of all civil and some criminal courts in the district.

The list of District Level Officers is given at Appendix.

APPENDIX

District Level Officers

1. District and Sessions Judge
2. Superintendent of Police
3. Executive Engineer, Public Works Department (Buildings & Roads)
4. Executive Engineer, Water Works
5. Executive Engineer, Project Division
6. Principal Medical Officer
7. Executive Engineer, Rājasthān Canal Project
8. Commercial Taxes Officer
9. Assistant Commissioner, Taxation
10. District Excise Officer
11. District Agriculture Officer (Office located at Churu but jurisdiction extends to Bikaner district also)
12. District Industries Officer
13. Inspector of Schools
14. Inspectress of Schools
15. Social Welfare Officer
16. Public Relations Officer
17. Settlement Officer
18. District Statistician
19. Assistant Director, Health Services
20. District Medical and Health Officer
21. Assistant Director, Malaria
22. Medical Officer-in-charge, National Malaria Eradication Programme Unit
23. Assistant Engineer, Tube Wells
24. Executive Engineer, Rājasthān State Electricity Board
25. Deputy Town Planner
26. Employment Officer
27. Assistant Regional Transport Officer
28. Superintendent of Jails
29. District Probation Officer
30. Inspector, Devasthan
31. Inspector, Ayurved
32. Forest Range Officer
33. Assistant Registrar, Co-operative Societies.

CHAPTER XI

REVENUE ADMINISTRATION

LAND REVENUE ADMINISTRATION

Historical Aspect

Due to lack of records, it cannot be definitely said how revenue administration was carried on in the beginning of the medieval period, prior to the foundation of Bikaner State by Rao Bika. It is, however, evident that at that time, most of the territory was occupied by Bhatias and various tribes, who were recorded as original settlers and claimed all the land around their villages as their exclusive possessions and ownerships, which they could bequeath to their descendants. Rao Bika, it appears, recognised and upheld these rights, but later, in the 15th and 17th Centuries, his descendants initiated the policy of exercising their sovereign authority over the entire area. The first available reference of the Bikaner State is found in *Ain-i-Akbari*¹. At that time, Bikaner was recognised as a *Sirkar*, in the *Subah* of Ajmer, comprising eleven *mahals* and yielding a revenue of 47,50,000 *Dams*.

The methods of assessment after the seventeenth century can be said to have varied from one ruler to another, though the most common one in use was to measure up the land every second or third year, so as to assess a cash rate per cultivated *Bigha*. The rent, called *Hasil* or *Rakam*, was paid by the cultivator along with other *Lag* (cess) fixed without any reference to area of land he held. This procedure resulted in bringing sometimes a gain and sometimes a loss to the State exchequer, due to yearly increase or decrease in the cultivated land, as the old cultivators migrated due to adverse climatic conditions or, in favourable circumstances, new ones arrived. The share of the produce was either *Batai* (division) or *Kunta* (appraisement), which was charged in addition to the cash rent. In some parts of the State, *Ijara* (lump assessment) would be fixed annually for a village and distributed over the entire cultivating population, except the *Chowdharis* and village menials. In other parts, the system known as *Anga-bach* was prevalent, under which the revenue was collected on the basis of the cultivated area combined with a poll tax on ploughs and cattle. The

demand was assessed by houses, each of which paid the following taxes yearly : (i) *Halgat* at Rs. 3 per bullock plough and Rs. 5 per camel plough; (ii) *Anga* at Rs. 1-4-0 (Rs. 1.25) per cow, Rs. 1-8-0 (Rs. 1.50) per buffalo, Rs. 1-12-0 (Rs. 1.75) per bullock and 3-8-0 (Rs. 3.50) per camel; (iii) *Dhuan* or house tax at Rs. 2-8-0 (Rs. 2.50) per house; (iv) *Rakhwali* or protection fee at Rs. 2 per house and (v) *Pagri* or poll tax of Rs. 1-4-0 (Rs. 1.25) per adult male. These rates varied from place to place. A particular class of agricultural labour, styled as *Hali*, surrendered to the Government, one-fifth of the produce instead of paying *Halgat*. In a few villages, the demand was assessed in a lump sum from house to house, varying with the economic condition of the inmates. It was called *Bhint-ka-bach* and was very common in the *Patta* estates.

The officers, called *Havaldars*, used to collect revenue from *Hakumats* or tahsils and paid a fixed amount to the *Raj*, keeping the balance with themselves on certain understanding with the State. The *Chowdharis* were employed as agents for collecting revenue from the cultivators. The tax known as *Bhunga* was also realised from the cattle-owners, who grazed their cattle in other villages, at the rate of four annas (25 paise) per cow, eight annas (50 paise) per buffalo and one rupee per camel.

The *Chowdharis* were permitted by *Raj* through a *Sanad* to colonise and cultivate waste land in other villages. They, in their turn, on receiving an induction fee (*Haqq daul*) of rupee one, could permit new cultivators to break up land. In lieu of their services, the *Sanad* permitted them to hold certain area of land on half (*Adhkar*) or full (*Sabkar*) rent-free basis. They could appropriate fees as marriage and weightment taxes (*Dharat*) from the cultivators, keeping the collections to themselves. Some of the *Chowdharis* did receive a sum known as *Nankar* (Subsistence) and an allowance of five per cent (*Pachotra*) on the collection of rent from the villages. They also collected an equal amount to the *Hasil* or *Rakam* in the name of *Malba* (village expenses) from each cultivator and shared it between themselves and the *havildars*. Thus the status of the *Chowdharis* nevertheless had become that of a sub-farmer responsible for the payment of a fixed sum rather than that of a rent collector only.

Summary Settlement

A summary settlement of *Khalsas* villages was undertaken in 1884, in order to evolve a uniform system of assessment and collection of

1. Jarrett and Sarkar, *Ain-i-Akbari* of Abdul Fazl-i-Allami, 1949, Vol. II, pp. 273-82.

revenue throughout the State. It was a very rough settlement; the maps were not drawn to scale and were just better than crude sketches; the fields were plotted mostly by the eye; but the maps showed the general shape of the village boundaries and the approximate position of the fields. This settlement was introduced for a period of five years and was subsequently extended to eight years.

After the introduction of this settlement, the principles of assessment were changed. Each village was now assessed at a lump sum and for the payment of the rent and taxes the *chowdharis* were held jointly responsible. They were deprived of the power to eject any cultivator who paid the proper rent.

The rates proposed for the assessment of land revenue for the then Bikaner, Kolāyat and Lunkaransar tahsils were as follows :

Rates per bigha (0.37 acres)

Tahsil	Cultivated Land		Waste Land
	Annas	Pies	
Bikaner	1	— 9	3
Lunkaransar	1	— 6	3
Kolāyat	1	— 9	3

The average of five years' income of the State, prior to this Summary Settlement was Rs. 3,08,950. The Summary Settlement assessed the revenue at Rs. 4,06,932, thereby increasing the income by Rs. 97,982 a year¹.

This settlement was defective in that there was no uniform policy adopted for the whole State. The State had to lose substantial amounts of revenue whenever a cultivator left the village or abandoned his holding, a phenomenon quite frequent because of poor quality of soil and also because of repeated droughts and famines. In the absence of proper administration of the unoccupied wasteland, the State lost revenue on this account also.

Settlement of 1894-95

The first regular settlement, made in 1892-93 by P. J. Fagan, an Assistant Commissioner of the Punjab, was brought into force in 1894-95 for a period of ten years and subsequently extended upto 1911.

1. *Report on the Administration of the Bikaner State, 1893-94*, p. 91.

SURVEY—A regular survey was conducted only for the *khalsa* area with the plane table and the chain used in some parts was the pukka *jariba* 82½ feet (25.14 metres) in length. A square of two such chains was equal to one pukka bigha or five-eighth of an acre; while in other parts of the State, local chain 63½ feet (19.43 metres) in length, was used and a square of two of them was equal to one Bikaneri bigha (0.37 acre). After measuring the area of each village, the boundaries were marked on a map and the *Khasra* (field register) and *Khatauni* (showing the groups of separate holdings) were also prepared.

The rates fixed varied from Re. 0-3-9 (22 paise) to Rs. 0-5-3 (33 paise) per bigha for the cultivated land and from the two pice to one anna (3 paise to 6 paise) per bigha for the occupied waste land. As per this settlement, the revenue demands for the *Khalsa* villages were fixed at Rs. 3,99,054.

According to this settlement, the *Chowdharis* were allowed to collect revenue at fixed rates for the land entered in the records. They realised grazing fee from the outside cattle. In lieu of their services, they were permitted to have five per cent (*pachotra*) on the fixed assessment of the village only, on the condition that the dues pertaining to their respective charge were fully paid by them to the State.

In 1912, G. D. Rudkin, Revenue Commissioner, initiated some changes in the rates of assessment which were extended up to the end of 1921-22. Regular settlement operations, however, were again started in 1925-26 and new rates of assessment came into force in 1926-27. The length of the chain used was 127½ feet (38.85 metres). The land was classified as cultivated and waste. The rates proposed for the assessment of the revenue for the different tahsils were as follows :

	Cultivated Land	Waste Land
Kolāyat	17 paise to 23 paise	3 paise to 8 paise
Bikaner	18 paise to 104 paise	13 paise to 18 paise
Naukha	15 paise to 24 paise	11 paise to 15 paise
Lunkaransar	21 paise	11 paise

1. *Four Decades of Progress in Bikaner, 1937*, p. 35.

The settlement demand in the Sadar division (now roughly comprising the Bikaner district), stood at Rs. 3,69,526 as compared to Rs. 2,50,242 under the previous settlement¹. This settlement remained in force till the merger.

The land of the erstwhile State of Bikaner was divided into three groups : (i) *Khalsa* (Crown land), (ii) Jagir (held by grantees) and (iii) *Sasan* (carved out for religious institutions during the reign of Maharaja Ganga Singh). The *Khalsa* land comprised near about 32 per cent of the total area of the State. The Jagir lands, comprising major portion of the remaining area, were of two types: (i) those held by near relatives of the Maharaja on revenue-free basis and (ii) those held by other Jagirdars in lieu of their past services. The second category of jagirdars paid *Rekh*, besides other cesses to the State. The *Sasan* (*Dharmada*) was granted for the maintenance of temples, in charity to Brahmins and Charans, and were held free and in perpetuity.

The jagirdars were divided into two categories, *Tazimi* and non *Tazimi*. The number of *Tazimi* nobles varied during the reigns of different rulers. Most of them were employed on important assignments in the State administration. The jagirdars used to supply the ruler with fighting men, but during the reign of Maharaja Ratan Singh (1828-51), this service was commuted to a cash payment called *Rekh* at the rate of Rs. 60 per horseman, which was subsequently raised to Rs. 125, and during Maharaja Surat Singh's reign to Rs. 200 per horseman. The jagirdars used to pay fixed tribute called *Rakm*, alongwith the *Rekh* (money in lieu of service) and the *Rekhwali* (protection fee) was also paid by them to the *Durbar*. They had also to pay one year's revenue as *Nazarana* or *Hukmanama* and *Neota* cess, fixed at one-fifth of their annual income, on the occasion of the ruler's marriage. They were further required to keep their estates in flourishing condition (*Ahad*) and their cultivators contented. The rulers used to extort a cess called *Talah* or a fine for non-payment or late payment of *Rekh*. Besides, the *Sardars* had to pay certain other taxes such as *Zakat*, a tax on sale, purchase and transit of grains, cattle etc., to the ruler.

A Court of Wards was established in 1894 for the better administration of jagirs. When the Court took over a jagir, a *Kamdar* was appointed to collect revenue and look after other administrative

1. *Four Decades of Progress in Bikaner*, 1937, p. 35.

matters. All the *Kamdars* of such estates were under an officer, who acted as a deputy to the *Nazim* of the concerned *Nizamat*. In 1946-47, there were 164 estates under the Court of Wards, out of which 132 were directly managed, 26 due to minority, 90 due to indebtedness, 8 due to succession disputes, two due to mismanagement, two due to *Pattedar* being invalid and four due to other reasons¹. In 1912, a Round Table Conference of *Tazimi Sardars* was called to discuss the matters relating to the State and the jagirdars. It resulted in close co-operation of the *Sardars* with the State administration. In 1921 again, the nobles were invited to a conference. By calling such conferences now and then, the jagirdars were kept in close touch with the administration, leaving no cause for them to grumble and remain secluded and disinterested in the affairs of the State and clinching their loyalty and subservience to the Maharaja in the process.

Settlement in Jagir areas

No settlement had taken place in the jagir areas till 1941. The jagirdars used to fix rent arbitrarily and such rates in 1940 were twice as much as in the *Khalsa* areas. They used to engage their own men to go from field to field to assess the produce. The methods of assessment were *Latai* and *Batai*. The *Latai* method was applied to the standing crop and the yield of the crop was estimated. The *Batai* method consisted in the assessment of jagirdar's share after the crop had been harvested and grain winnowed on the thrashing floor. The assessed quantity of the produce was delivered to the jagirdar at his door and his share varied from one third to one sixth of the produce from village to village. The jagirdars could make any illegal exactions and they never tried to keep any proper records.

During the reign of Maharaja Ganga Singh (1887-1943), a regular system of payment of land revenue in cash in Jagir areas was introduced and the revenue rates were specifically fixed. They varied from two annas to ten annas (12 paise to 62 paise) per bigha according to the quality of the land². The settlement operations in the jagir villages commenced on 1st January 1942³ and were completed in

1. *Report on the Administration of Bikaner State*, 1945-46 and 1946-47.
2. Gupta, B. P., *Growth of Administration in Bikaner State* (1818-1947), unpublished Ph. D. Thesis, University of Rajasthan, Jaipur, p. 314.
3. *Report on the Administration of the Bikaner State*, 1939-40, 1940-41, and 1941-42, p. 60.

1951-52, after the merger of the State into Rājasthān, in 1949. The land revenue was fixed at Re. 0-6-3 (40 paise) per bigha, both for cultivated and uncultivated lands. It undoubtedly afforded a considerable relief to the tenants of the jagir areas. The State Land Revenue and Tenancy Acts, 1945 were made applicable to jagir areas also.

Survey and attestation operations in the jagir villages were conducted on plane table triangulation basis, with a chain of 165 feet (50.29 metres) in length, except in Kolāyat and Naukha tahsils, where the half chain measuring 82½ feet (25.14 metres) was used. According to this settlement, the following amount was assessed in different tahsils :

Tahsil	Villages	Amount (Rs.)
Bikaner	128	76,054
Kolāyat	103	26,111
Lunkaransar	171	2,62,874
Naukha	114	1,51,937

The following table gives the relevant details of the tahsils and the rates of revenue per bigha in the district :

(Paise)				
Tahsil	Circle	Pala	Bilapala	Banjar
1. Bikaner	I	30 to 37	27 to 32	14 to 18
	II	12 to 25	10 to 22	6 to 11
	III	21	17	9
	IV	17	14	9
2. Kolāyat	I	25	19	9
	II	15	9	5
	III	12	8	3
	IV	9	5	2
3. Naukha	I	22 to 36	19 to 33	9 to 15
	II (Dhora)	17 to 30	14 to 27	5 to 9
4. Lunkaransar	Bhadava	27	24	8
	I (Dhora)	31	28	12
	II (Dhora)	25	21	8

The number of villages surveyed in Bikaner tahsil was 128, in Lunkaransar 148, in Kolāyat 104 and in Naukha 114. Due to the resumption of jagirs (between 1952 and 1959), settlement operations were again undertaken in 1959, in jagir villages and completed and approved by the Government of Rājasthān in 1963. Next settlement in this area will be due in Samvat 2030 (1973 A. D.).

Settlement after the Merger

After the formation of Rājasthān, the Settlement Office was reorganised and put under an officer known as the Settlement Officer, who works under the direct administrative control of the Settlement Commissioner, Rājasthān, Jaipur. The Settlement officer, Bikaner has jurisdiction over three districts viz., Bikaner, Gangānagar and Churu.

The settlement operations were taken up in the year 1950. The survey operations were carried out in 678 villages and the total area surveyed was 28,531 sq. miles. The *Jarib* used in these operations varied from tahsil to tahsil. In tahsil Lunkaransar its length was 165 feet while in the remaining three tahsils of Bikaner, Kolāyat and Naukha it was 127½ feet for *Khalsa* areas and 165 feet for the jagir areas.

ASSESSMENT—For assessment purposes, the Unit Value System was adopted and the land was divided into the classes of (i) *Pala*, (ii) *Non-Pala*, (iii) *Banjar*, (iv) Cultivated and (v) *Chahi*, for which highest and lowest rates (per bigha) were fixed as follows :

(Rupees)			
Tahsil	Soil classes	Highest Rates	Lowest Rates
1. Bikaner	1. <i>Pala</i>	0.36	0.17
	2. <i>Non-Pala</i>	0.27	0.14
	3. <i>Banjar</i>	0.18	0.09
	4. Cultivated	0.21	—
	5. <i>Chahi</i>	1.04	—
2. Lunkaransar	1. <i>Barani</i>	0.35	0.20
3. Naukha	1. <i>Pala</i>	0.36	0.30
	2. <i>Non-Pala</i>	0.33	0.27
	3. <i>Banjar</i>	0.15	0.09
	4. Cultivated	0.24	0.15
4. Kolāyat	1. <i>Pala</i>	0.25	0.09
	2. <i>Non-Pala</i>	0.19	0.05
	3. <i>Banjar</i>	0.09	0.02
	4. Cultivated	0.23	0.17

The terms of settlement prescribed for different tahsils were as follows : Naukha *Samvat* 2008 to *Samvat* 2019 (1951 to 1962 A.D.), Bikaner *Samvat* 2008 to *Samvat* 2019 (1951 to 1962 A.D.), Lunkaransar *Samvat* 2008 to *Samvat* 2012 (1951 to 1955 A.D.) and Kolāyat *Samvat* 2009 to *Samvat* 2020 (1951 to 1963 A.D.). The assessment rates were fixed as follows :

Tahsil	Amount (Rupees)
Naukha	1,42,161
Bikaner	73,718
Lunkaransar	55,188
Kolāyat	26,285

Settlement operations were again taken up in Lunkaransar tahsil in the year 1962 (*Samvat* 2019) and the term of settlement was fixed upto *Samvat* 2030 (1974 A.D.). The prominent feature of this settlement was that cesses of various types were abolished and rents were to be realised in cash. As regards the rent in kind, it was enacted that the maximum recoverable from a tenant shall not exceed one-sixth of the gross produce. Pending approval of the new settlement rates, the previous rates are in force.

In 1954, forty-two villages of Nāchna tahsil of Jaisalmer district were transferred to Kolāyat tahsil. No settlement of those villages had been made prior to this transfer, so after the transfer, summary settlement was completed in *Samvat* 2013 (1956 A.D.). Again in 1960 settlement operations were taken in hand and duly completed in 1962. The chain used for the purpose, was 165 feet (50.29 metres) in length. The term of the settlement was fixed from *Samvat* 2021 to *Samvat* 2030 (1964 to 1973 A.D.) and the total area surveyed was 18,34,837 bighas. For the assessment purposes the land was divided into the classes (i) *Barani* I (ii) *Barani* II (iii) *Barani* III and (iv) *Ghair-Mumkin*

For each category the rates fixed per bigha were the following:

<i>Barani</i> I	6 to 16 paise
<i>Barani</i> II	5 to 14 paise
<i>Barani</i> III	10 paise
<i>Ghair-Mumkin</i>	Nil

In the year 1965-66, the Settlement Officer, Bikaner was being assisted by five Assistant Settlement Officers who had a sanctioned staff of eight upper division and seventeen lower division clerks, four tracers, one sadar munsarim, thirty inspectors, one hundred and forty-two surveyors and fifteen peons including two camel-riders.

Set-up of the Revenue Administration

As regards the set-up of the revenue administration in the period prior to the advent of Rathors, nothing can be said definitely except that it might have been constantly changing due to the frequent changes of the ruling dynasties. When the Rathors acquired this territory, they realised State revenue either through revenue contractors or revenue farmers, as stated earlier. The revenue during the Mughal period, especially under Akbar, might have been realised by the ruler direct, through the appointed *Havaldars* or *Hakims* as the authorised farmers of the Durbar for different *Hakumats* or tahsils. They paid annually to the State treasury a fixed demand agreed upon between themselves and the Durbar. This system worked well up to 1871, when a revenue officer with a revenue court was established. A new post of Superintendent of Revenue was also created. In 1880, the contract system for the revenue collection was given up and paid Tahsildars were appointed from amongst the local residents. After 1884, it was decided to appoint better qualified persons even if they were outsiders.

In 1885, for the better administration of the department, the State was divided into four divisions called *Nizamats*, of which Bikaner, being one, comprised two tahsils viz., Bikaner and Lunkaransar. In 1893-94, a third tahsil Kolāyat, was established. A system of grading tahsildars and naib-tahsildars was adopted in March 1889, with the object of encouraging efficient workers by holding out prospects of regular promotion. In April 1891, the pay grade of the tahsildars was increased, and a horse allowance and travelling allowance for tours were granted.

In 1910, Board of Revenue of Bikaner State was established. It provided for better and more efficient supervision, control, co-ordination and quicker disposal of work. The other revenue earning departments viz., Customs and Excise, Stamps and Registration were made subordinate to the Board. The Board was authorised to frame and issue rules with the approval of the ruler, regulating assessment and remission of land revenue, the grant of *chaks*, the ejectment of

trespassers, exchange and transfer of holdings and various incidental matters. Consequent on the establishment of the Board, the post of the Revenue Officer (created in 1871) was abolished. The Board consisted of four members namely, Revenue Members, Revenue Commissioner, Revenue Secretary and Inspector General of Customs and Excise. The Revenue Member was concurrently a member of the State Council (controlling body of the administration of the State). The Revenue Secretary was assisted by the Revenue Commissioner in the performance of his duties. There was one Assistant Revenue Commissioner to assist the Revenue Commissioner and to supervise the working of the *Nazims*, who were the heads of the *Nizamats*. The tahsildars and naib-tahsildars headed revenue administration at tahsil and sub-tahsil levels respectively. In the lowest rung of ladder of revenue administration were the *Girdawars* who performed their duties with the help of the *Patwaris*.

During the period 1917-1929 the Land Records section of the Revenue Department was overhauled and trained and competent *Girdawars* and *Patwaris* were employed. In order to overcome the shortage of experienced and competent staff, training facilities were provided by the State for the prospective candidates. Another important decision, taken by the Administration in 1913 was the preparation of land records in Hindi. The *Patwaris* were ordered to transcribe demand and collection papers in Hindi, right from 1904 onwards before which these had been prepared in Urdu.

In 1927, due to the opening of Gang Canal, irrigation facilities were made available to the cultivators resulting in increase in the work of colonisation and irrigation. On August 22, 1927, therefore, the State was divided into two divisions viz., *Sadar* and *Gangānagar*; the *Sadar* division comprised the three *Nizamats* of *Sadar*, *Sujangarh* and *Reni*; and the *Gangānagar* division, those of *Suratgarh* and *Gangānagar*. Settlement operations were begun afresh. They, however, were confined to the area now included in *Gangānagar* district.

In 1935, the departments of Revenue and Irrigation were amalgamated and placed under a Colonisation Minister. In 1945, the Bikaner State Land Revenue Act was passed. It provided for payment of land revenue assessed in cash annually, in a lump sum at prescribed per bigha rates. The period of assessment was fixed as follows :

<i>Khalsa</i> Villages—(a) <i>Barani</i> areas	—30 years
(b) Canal Irrigated areas	
Maximum	—20 years
Minimum	—10 years

After the merger of the State into Rājasthān, the whole area of the State was placed under a Commissioner, and the Board of Revenue Bikaner State was disbanded on 13th August 1949¹. For the revenue purposes it was divided into three districts, Bikaner being one of them, with the Collector as head of the district administration.

The Board of Revenue, Rājasthān was established at Ajmer according to the provisions of the Rājasthān Land Revenue Act, 1956. It is the highest court of appeal, revision and reference in Rājasthān in revenue matters. It is empowered to exercise supervision and control over all the revenue courts (Divisional Commissioner's, Collector's and Tahsildar's courts) and the revenue officers of the State. In 1961, the post of the Divisional Commissioner was abolished. The district has been divided into two sub-divisions, viz., Bikaner north and Bikaner south; each having two tahsils. Thus there are four tahsils comprising fifteen *Girdawar* circles and 131 *Patwar Halkas*, details of which are as follows² :

Sub-Division	Tahsil	Naib tahsils	Girdawar Circles	Patwar Halkas
1. Bikaner north	1. Bikaner	2	4	38
	2. Lunkaransar	1	4	31
2. Bikaner south	1. Naukha	2	3	33
	2. Kolāyat	1	4	29
Total	4	6	15	131

The detailed information regarding the location of *Girdawar* circles and *Patwar Halkas* is given in Appendix I.

Income from Land Revenue

As per available records, the land revenue of the erstwhile Bikaner State (formed now into three districts of Bikaner, Churu and

1. Vide Gazette notification of Law Department of United State of Rājasthān, No. 27 LD/USR dated 13th August, 1949, cf. its clause No. 19.
2. Source : Collectorate, Bikaner.

Gangānagar) was Rs. 5,80,321 in the year 1883-84, during the reign of Maharaja Dungar Singh. At the time of accession of Maharaja Ganga Singh to the throne in the year 1887-88, it was Rs. 7,27,437. The yearwise record of the revenue collected by the entire State is available, but it is difficult to break it up for the area comprising the present Bikaner district. However, assuming the then Bikaner *Nizamat* approximately co-terminus with the present Bikaner district, the revenue accruing in it during 1942-43 to 1946-47 is given below separately for *Khālsa* and *Jagir* areas :

(Rupees)			
Year	Demand	Collection	Balance
Land Revenue from Khālsa Villages			
1942-43	8,51,070	8,14,137	36,933
1944-45	6,27,902	5,77,836	50,066
1945-46	5,95,972	4,89,548	1,06,424
1946-47	6,40,975	5,60,768	80,207
Tribute from Jagirdars			
1942-43	6,90,611	5,25,496	1,65,115
1944-45	4,48,476	3,16,739	1,31,737
1945-46	4,25,596	2,41,016	1,84,580
1946-47	4,39,212	2,30,432	2,08,780

The demand, collection, remission and balance of land revenue for the Bikaner district for the period 1957-58 to 1965-66 is given below¹ :

(Rs. in Lakhs)				
Year	Demand (arrears and current)	Collections	Remissions	Balance
1957-58	26.45	1.26	—	25.19
1958-59	25.08	8.11	—	16.97
1959-60	14.15	8.75	3.36	2.04
1960-61	14.26	3.50	8.76	2.00
1961-62	13.85	8.44	1.39	4.02
1962-63	13.81	0.23	13.58	—
1963-64 ²	13.80	0.22	—	13.58
1964-65	13.81	0.23	0.79	12.79
1965-66	15.92	12.10	1.50	2.32

Remission of land revenue has almost been a regular feature due to the climatic conditions of this area.

1. *Statistical Abstract*, Rājasthān, yearly volumes for various years.
2. Figures for the year 1963-64 supplied by Directorate of Economics and Statistics, Rājasthān, Jaipur.

LAND REFORMS

Position of the Tenants

Before the formation of Rājasthān, though there were written tenancy laws in the Bikaner State, but these enactments were conservative in nature. They merely sought to give legal shape to prevailing customs or practices. Full rights of transfer were recognised in the case of occupancy tenants on *Khālsa* lands in the State. The tenants had to pay premium or *Nazarana* as the price of acquiring rights of transfer. Even after the payment of *Nazarana*, transfers were subject to the prior sanction of the Maharaja. In 1942, as per Bikaner State Government orders, tenants holding land for 20 years or more had been declared *Khatedars* and the remaining tenants were recorded as *Ghair-Dakhilkars* (temporary cultivators). The tenants in the jagir areas could not acquire occupancy rights at all. The jagirdars for all intents and purposes were owners of the jagir lands, and payment made by them to the State had no bearing on the amount realised from their tenants. In most of jagir areas, rent was realised by taking a share of produce, ranging from one-half to one-eighth. In the unsettled jagir areas, the tenants were more or less tenants-at-will. They were forced to pay many levies¹ of which some were the following :—

1. *Malba* or *Pachhotra* —to meet the actual expenses of the *Thikana* officials on duty for collection of revenue.
2. *Nanwa* —for meeting the expenses of maintaining the accounts-books.
3. *Korad* —for fodder for the maintenance of horses and camels of the Jagirdars.
4. *Begar* or forced labour
5. *Khuntabandi* and *Pancharai* —grazing fee realised in respect of camels, sheep and goats.
6. *Shradha* levy —realised in the form of *ghee* and milk from tenants for celebrating the *shradha* of the forefathers of Jagirdars.

Abolition of Jagirs

The first and foremost task before the Government of Rājasthān after its formation, was the abolition of intermediaries on land.

1. Gupta, B.P., *Growth of Administration in Bikaner State (1818-1947)*, unpublished Ph. D. thesis, University of Rajasthan, pp. 287-325.

The Rājasthān Land Reforms and Resumption of Jagirs Act, 1952 was brought into force with effect from 18th February, 1952. The Jagirdars, however, challenged the constitutional validity of the legislation and the provisions of the Act largely remained unimplemented for over two years, till the High Court and the Supreme Court held it *intra vires*. As a result of Nehru award, the original act was amended in several important aspects by the Rājasthān Land Reforms and Resumption of Jagirs (Amendment) Act, 1954. Cash jagirs or grants of money by way of jagirs, were also abolished with effect from 1st April, 1958, under the Rājasthān Cash Jagirs Abolition Act, 1958. The compensation payable to a Jagirdar was seven times his net annual income, calculated in accordance with the provisions contained in the Act. All the jagirs have been resumed and compensation paid to the Jagirdars. The amount paid to the Jagirdars as compensation, upto the end of the financial year 1965-66 was Rs. 3,094 thousand, Rs. 1,329 thousand as interim compensation in cash and Rs. 1,765 thousand in the form of bonds.

Tenancy Reform

During the princely administration, on the whole, a tenant of *Khālsa* land enjoyed greater security of tenure than his counterpart of jagir land. He paid a fixed rent in cash, while a tenant of jagir land was open to harassment by the *Kamdars* of the Jagirdar. He was liable to ejectment by the intermediaries and could not go in appeal to the Maharaja, who was interested only in the realisation of the *Rekh* from the Jagirdar. The situation, however, improved during the reign of Maharaja Ganga Singh, who ordered in 1941, the grant of occupancy rights to agriculturists in unirrigated village of the State. These privileges were also extended to the tenants in the jagir areas.¹

After the formation of Rājasthān, the Government protected the rights of the tenants in many ways. An ordinance was promulgated in June 1949, called the Rājasthān (Protection of Tenants) Ordinance, 1949, later replaced by the Rājasthān Tenancy Act 1955. According to the provisions of 1949 Ordinance no tenant was liable to be ejected or dispossessed otherwise than in accordance with the procedure of the law. It also provided a simple and quick process for reinstatement of tenants forcibly ejected. This came as a boon to the tenants securing them possession of land cultivated by them which ultimately resulted

in the accrual of *Khatedari* rights to them in their holdings. This was followed by Rājasthān Tenancy Act 1955 and The Rājasthān Land Revenue Act, which conferred several rights and privileges on the tenants and the security of their tenures. The most note-worthy feature of the Tenancy Act was that all those who were cultivating their holdings as tenants on 15th October, 1955, the date on which the Act came into force, automatically and without payment of any compensation acquired *Khatedari* rights with practically full powers of devolution and transfer and immunity from ejectment, except in accordance with the provisions of the Act. These rights were also conferred on sub-tenants, if they were recorded as such or were proved to be so, under certain circumstances through payment of small compensation to the land-holder. The revolutionary principle of the modern age that land belongs to the tiller of the soil, was sought to be implemented. The Land Revenue Act prescribed the maximum rent in cash or kind that a tenant was liable to pay. The cash rent was not to exceed double the amount of land revenue and the rent in kind was not to exceed one-sixth of the gross produce.

Another important provision of the Tenancy Act was the ban on the levy of various cesses. But despite this, certain cesses continued to be levied in various areas. The Rājasthān Discontinuance of Cesses, Act, 1959 was passed for their abolition.

Revenue Cases

The following statement shows the disposal of revenue cases in the district for the years from 1959-60 to 1965-66 1:

(Number)

Year	Opening Balance	Instituted	Total	Disposed of	Closing Balance
1959-60	555	1,115	1,670	1,216	454
1960-61	454	1,787	2,241	1,742	499
1961-62	499	3,420	3,919	3,248	671
1962-63	671	2,615	3,286	1,977	1,309
1963-64	1,309	3,890	5,199	4,098	1,101
1964-65	1,101	1,674	2,775	1,754	1,021
1965-66	1,021	1,893	2,914	1,899	1,025

1. Source : Directorate of Economics and Statistics, Rajasthan, Jaipur.

1. Report on the Administration of Bikaner State, 1939-40 to 1941-42, p. 60.

Land Holdings

A committee was appointed in November 1953 for the fixation of ceilings on holdings of agricultural land in Rājasthān. The Rājasthān Tenancy (Sixth Amendment) Act 1959, was enacted in March 1960. It fixed ceilings on holdings. A family of five or less members, could own a maximum of thirty standard acres of land. The area in excess of this ceiling had to be surrendered to the State for which due compensation was to be paid. The surrendered land was to be let out to landless and other persons on the terms and conditions laid down in the rules. The notification calling upon the land-holders to surrender their excess areas to the Government has yet to be issued.

Landless Agricultural Workers

As per the Census Report of 1961, the total number of landless agricultural workers in the district was 846 in rural areas and 116 in urban areas. The Government have taken steps to allot them unoccupied land.

Bhoodan and Gramdan

Due to the *Bhoodan* movement, sponsored by Vinoba Bhave, lands have been donated to the Bhoodan Yagna Board, recognised by Bhoodan Yagna Act 1954, brought into force from 7th August 1954. The Rājasthān Bhoodan Yagna Board started functioning in January 1955. Further developments occasioned by the donations of *grams* (called *Gramdan*), ultimately necessitated legislation for the establishment of *Gramdan* and for the constitution of *Gramsabhas* to manage the land received as gramdan and to perform other incidental functions. The Rājasthān Gramdan Act, accordingly, was passed on 18th December, 1959, and came into force from 8th June, 1960. This Act permits the land-holders to donate their rights to the *Gramsabhas* and makes various incidental provisions.

The yearly progress of the *Bhoodan* movement, showing the number of donors, land donated and distributed, and the number of families benefited, is given in the following table¹ :

1. *Statistical Abstract, Rajasthan*, yearly volumes for various years.

Year	Donors (No.)	Land donated (Hectares)	Land distributed (Hectares)	Families benefited (No.)
1956	30	210	—	—
1957	1	10	—	—
1958	—	—	2,330	261
1959	6	527	559	55
1960	—	—	498	48
1961	—	—	2,184	198
1962	—	—	2,109	208
1963	—	—	2,139	54
1964	—	—	546	166
1965	—	—	386	140
1966	—	—	386	140

OTHER SOURCES OF REVENUE

Past Sources

Besides the land revenue, a number of taxes were levied and *Lags* realised by the former Bikaner State Government. There were import and export duties on *Til* and Sugar, *Rakm* (a fixed military tribute), *Rekh* (money payment in lieu of military service), *Rakhwali* (protection fee) and *Pagri* or poll tax per adult male. Besides, twenty two taxes of peculiar type were collected, which have been given at appendix II. It is difficult to ascertain the years when the different taxes were introduced in the State. After the accession of Maharaja Ganga Singh, many of them were abolished. It was a practice with the rulers to abolish some taxes and order levy of others at the time of their accession to the *Gaddi* (throne).

Present Sources

At present, the main sources of state revenue, besides the land revenue, are state excise, sales tax, entertainment tax, registration fees and stamps and taxes on vehicles. The sources of revenue of the Government of India include taxes on income and property, customs and union excise.

REGISTRATION FEES—Under the Indian Registration Act of 1908, registration is compulsory in case of certain documents and optional in case of others. The Collector of the district is the ex-officio District

Registrar under the Act. Under him there is a sub-registrar, who actually registers documents, for which the required stamp duties and registration fees have to be paid. He also keeps a record of the registered documents and, on application, issues their certified copies.

The following statement gives the deeds registered by Sub-Registrar, Bikaner city and income derived therefrom during the years 1960-61 to 1965-66:

Year	Documents registered (No.)	Income (Rupees)
1960-61	1,775	27,951
1961-62	1,636	30,231
1962-63	2,075	33,906
1963-64	1,845	33,474
1964-65	1,669	33,200
1965-66	1,254	34,526

STAMPS—Under the Stamps Act, the District Treasury Officer functions as custodian of Stamps for the purpose of storage as well as distribution and sale through the sub-treasuries, numbering three in the district, and stamp vendors. There is only one stamp vendor at the district headquarters. During the last five years from 1961-62 to 1965-65, income from the sale of non-judicial and judicial stamps has been given below²:

(Rupees)

Year	Non-judicial Stamps	Judicial Stamps
1961-62	2,01,157	1,31,164
1962-63	2,35,631	1,42,120
1963-64	7,63,824	2,07,596
1964-65	14,07,509	5,35,452
1965-66	7,06,876	3,01,759

REGISTRATION OF MOTOR VEHICLES—As per provisions of the Rajasthan Motor Vehicles Act, the Collector is the registering authority for the motor vehicles in the district. The following table gives the

year-wise number of registered vehicles and the total amount of revenue collected¹ :

Year	Vehicles registered (No.)	Registration fee (Rs.)
1960-61	92	1,268
1961-62	101	1,182
1962-63	105	1,053
1963-64	78	1,372
1964-65	103	1,967
1965-66	87	1,550

EXCISE AND TAXATION—Before the merger of Bikaner State into Rājasthān, Customs and Excise Department was under the charge of an officer known as Inspector-General of Customs and Excise. The Excise Act and Manual and the Customs Act and Manual and Tariff were introduced in 1911. Some amendments were made in the Customs Act in 1916 and 1922. The Excise Act and Manual were also revised in 1922. Dangerous Drugs Regulation was incorporated in the Excise Manual under the expert advice of J. A. Pope, the then Excise Commissioner, Central India. Hemp-Drugs, originally sold on contract system, were imported by contractors under permits issued by the Excise Department. This system was abolished in 1921-22, and replaced by import of the drugs directly by the State. Again the import of opium was stopped in November, 1931 and replaced by imports only on State account for issue to the license holders for retail sale. Such measures improved the working of the system and the Government was able to earn a revenue of Rs. 16,44,759 as excise in 1945-46.

After the formation of Rājasthān, under provisions of the Sales Tax Act of 1954, custom duty was replaced by Sales Tax. Accordingly, the former Department of Customs and Excise came to be designated as the Department of Excise and Taxation. In the year 1964, this Department was bifurcated into two separate Departments of Excise and Commercial Taxes. In the district at present, an Excise Officer and a Commercial Taxes Officer are looking after these two departments respectively.

1. Source : Office of the Sub-Registrar, Bikaner City.

2. Source : Treasury Officer, Bikaner.

1. Source : Registering Authority, Motor Vehicles Department, Bikaner.

The District Excise Officer, Bikaner is assisted in his work by Circle Inspectors, one Prosecuting Inspector and other ministerial and field staff. The revenue from excise for the last three years, is shown in the following table¹:

(Rupees)	
Year	Revenue
1963-64	13,26,656
1964-65	13,86,786
1965-65	17,93,064

Commercial Taxes Officer, Bikaner looks after the collection of sales tax and also the passenger, goods and entertainment taxes etc. He was responsible for two districts (comprising two circles) of Bikaner and Churu till October 1966, and was assisted by five Assistant Commercial Taxes Officers, four in the district, posted at Bikaner.

For the collection of the above taxes, Bikaner district was divided into two wards, 'A' and 'B'. There was one Assistant Commercial Taxes Officer (Passenger and Goods Tax) with headquarters at Bikaner exclusively responsible for the administration of the passengers and good taxes. For surveys, enquiries and other field work, the Assistant Commercial Taxes Officers are assisted by five Commercial Taxes Inspectors, two for sales tax purposes, one for passenger and goods taxes, one for entertainment tax and one for prosecution work in courts at Bikaner. The Commercial Taxes Officer, Bikaner, since October 1966 is assisted by three Assistant Commercial Taxes Officers, two for sales tax and one for passenger and goods taxes. A separate post of Assistant Commercial Taxes Officer (Appeals) was created in April, 1967 to assist the Commercial Taxes Officer to plead the cases before the Deputy Commissioner (Appeals), headquartered at Bikaner, since July 1966 (for Bikaner, Gangānagar, Churu and Sikar Jhunjhunu circles). The following table shows the revenue accruing from various taxes during 1960-61 to 1965-66 in the district²:

1. Source : Office of the District Excise Officer, Bikaner.
2. Source : *Statistical Abstract, Rājasthān*, yearly volumes for various years and Commercial Taxes Officer, Bikaner.

(Rs. in thousands)

Year	Sales tax	Passenger and goods tax	Entertainment tax	Electricity duty	Customs	Agricultural income tax
1	2	3	4	5	6	7
1961-61	1,198	152	131	—	0.01	8
1961-62	1,366	166	193	—	1.33	8
1962-63	1,713	203	263	115	0.51	—
1963-64	2,676	236	326	166	—	—
1964-65	2,677	295	344	187	0.07	0.32
1965-66	3,115	391	410	220	0.51	—

INCOME TAX—The most important source of revenue of the Government of India in the district is the Income Tax. The Bikaner State introduced income tax first under the provisions of the State Income-Tax Act, 1940, in the same year. The following income accrued under this head during 1944-45 to 1946-47¹:

Year	Amount (Rs.)
1944-45	330
1945-46	38,131
1946-47	9,638

For the collection of income tax, there are three Income Tax Officers, one class I and two class II, in the district at present. They are assisted by two inspectors and necessary complement of ministerial and class four employees.

The Railway and Postal Departments of the Government of India are also revenue earning agencies.

Besides, these revenue earning departments of the State and the Centre, the municipal committees are also empowered to raise revenue by levying octroi, taxes on houses and lands, lighting, water conservancy rates and taxes on professions and trade etc. Sources of income of *Panchayats* include taxes on vehicles, buildings, and commercial crops and pilgrim tax.

1. *Report on the Administration of Bikaner State for 1944-45 to 1946-47.*

APPENDIX I

Girdawar (Inspector) and Patwar Circles in Bikaner District

Tahsil	Girdawar (Inspector) circle	Patwar circle
1	2	3
Bikaner	Pugal	1. Ballar 2. Dantor 3. Siyasar Chogan 4. Beriyawali 5. Rānīsar 6. Pugal 7. Gangajali 8. Jodhāsar 9. Amarapur
	Sattāsar	10. Kakrāla 11. Ranewala 12. Chha- ttragarh 13. Sattāsar 14. Motigarh 15. Karnīsar Bhatiyān 16. Jaimalsar 17. Noorsar Jālwalī 18. Kālāsar 19. Shobhasar
	Jāmsar	20. Nalbari 21. Kānasar 22. Udāsar 23. Bamblu 24. Jāmsar 25. Mālāsar 26. Rooniyan Barwas 27. Sareram 28. Gūsainsar
	Bikaner	29. Tejrasar 30. Napāsar 31. Gādh- wala 32. Bikaner 33. Karnīsar 34. Gāngashahar 35. Palāna 36. Deshnoke 37. Kesar Desar Ja an 38. Mundsar
Lunkaransar	Dheerera	39. Sodhwali 40. Rājāsar Bhatiyān 41. Motāsar 42. Kujti 43. Khokhrāna 44. Dheerera 45. Hansera
	Kumbhana	46. Mahadeowali 47. Kānolai 48. Khārbāra 49. Jāgor 50. Hindaun 51. Kumbhana 52. Roja
	Mahājan	53. Khanisar 54. Bhojrasar 55. Mahā- jan 56. Manoriya 57. Rambāg 58. Sherpura 59. Jaitpura 60. Suin 61. Kākarwāla.
	Lunkaransar	62. Kaparisar 63. Shekhsar 64. Rājāsar alias Karnisar 65. Kishanahar 66. Gārabdesar 67. Rānāsar 68. Kalu 69. Lunkaransar

APPENDIX I (concl'd.)

1	2	3
Naukha	Naukha Mandi	70. Bhadla 71. Saruda 72. Sadhuna 73. Kāku 74. Dawar 75. Charkara 76. Kudru 77. Naukha Mandi 78. Sinjguru 79. Somalsar 80. Himat- sar
	Jasrāsar	81. Jasrāsar 82. Kakda 83. Udsar 84. Sādasar 85. Kuchor Aguni 86. Kuchor Athuni 87. Badhnu 88. Morkhana Athoona 89. Bairasar 90. Gajsukhdesar 91. Mensar
	Pānchun	92. Jaisinghdesar Magra 93. Dharnog 94. Nāthusar 95. Pānchun A 96. Udāsar 97. Naukha gaon 98. Jānglu 99. Bhāmatsar 100. Sūrpura 101. Desilsar 102. Pānchun B
Kolāyat	Barsalpur	103. Magrewala 104. Jagasar 105. Sherwala 106. Bhaleri 107. Man- kāsar 108. Barsalpur 109. Raiwala 110. Ranjitpura 111. Godoo 112. Bajoo 113. Beehmampur
	Bajoo	114. Nagrāsar 115. Girājsar 116. Gariyala 117. Bithnoke 118. Surjara
	Kolāyat	119. Khari Chārnān 120. Bholāsar 121. Akāsar 122. Kolāyat 123. Gudā
	Diyātra	124. Diyātra 125. Mandalcharnan 126. Bhane-ka-Gaon 127. Handan 128. Jhaju 129. Siana 130. Khindasar 131. Dasodi.

APPENDIX II

Peculiar Taxes Collected in the Erstwhile State of Bikaner¹

1. *Rupota*—tax levied on shops and on the sale of camels and certain goods in the city.
2. *Afim-ka-Sauda*—or license tax on speculation in the price of opium; it was levied on each speculator and varied from Rs. 2 to Rs. 6.
3. *Menh-ka-Sauda*—license tax on speculation on probability of rainfall.
4. *Tankri ghi*—raw sugar, *Zarda tamaku* (chewing tobacco) as taxes on the weighing of these articles.
5. *Kapara-ki-dallali*—tax on cloth merchants in the shape of brokerage.
6. *Sona-Rupa-ki-Chadami*—tax on the sale of gold and silver.
7. *Kandoi-ka-laga*—license tax on the making of sweetmeats for festivals.
8. *Kiraut-lagon-ki-bach*—annual lumpsum license tax on craftsmen, such as goldsmiths, iron mongers, tailors, shoe-makers etc., individually assessed and collected by the respective *chaudharis*.
9. *Khola* or adoption fee on persons adopting a son, determined according to his means, subject to a maximum of Rs. 1,000.
10. *Chauth Zamin* was distinguished under two heads, viz., the sale (within the city) of land and buildings belonging to the Durbar, and that of private individuals. In the former case, the whole of the proceeds were credited to the Durbar, while in the latter, one-fourth was taken by the State.
11. *Gaimal* or proceeds of unclaimed property or property in Bikaner belonging to a deceased Bikaner subject without a male heir—an oppressive practice abolished by Maharaja Ganga Singh in the year 1924.
12. *Dhuan*—house tax for each family.

1. Powlett, P.W., *Gazetteer of Bikaner State* (1874), (Reprinted 1935), pp. 145–146.

APPENDIX II (concl'd.)

13. *Kurar Jhunkera*—tax for fodder for each family.
14. *Neota bach*—tax on presents on occasions of marriage, at Rs. 7 and 7 *takas* (or 14 pice)—abolished by Maharaja Sadul Singh in 1943.
15. *Talibab*—cess levied on non-agriculturist classes, at Rs. 2 on each family and Rs. 4 per camel.
16. *Singhoti*—tax on sheep and goats, at the rate of Re. 1 for every 14 heads.
17. *Chaudrbab*—at Rs. 11 from each village *Chaudhari*.
18. *Kot* and *Khair bach*—tax occasionally levied for the repairs of the Bikaner fort.
19. *Peshkash*—succession fee on *pattas* generally equal to the yearly *rakm* (amount) payable by the *patta*-holders, but sometimes very much more.
20. *Nazrana*—levied on occasion of change of *pattas*, and often arbitrary when the ruler wanted money.
21. *Raj Tilak*—present made to the ruler on occasion of accession to the *gadi*. It consisted of horses, elephants, gold *mohurs* etc.
22. *Salselari*—tax levied from *Dheds* (a very low caste) at 2 or 2½ per cent per family.



CHAPTER XII

LAW AND ORDER AND JUSTICE

INCIDENCE OF CRIME

The following statement shows the incidence of the major crimes in the district from 1957 to 1966.

Year	Dacoity	Robbery	Murder	Riot	Burglary	Cattle theft	Other theft	Misc.	Total
1	2	3	4	5	6	7	8	9	10
1957	2	15	3	27	72	24	86	174	403
1958	2	13	14	29	97	28	109	188	480
1959	—	17	10	25	73	33	84	177	419
1960	1	7	11	17	96	36	86	234	488
1961	2	13	12	14	90	47	84	214	476
1962	11	24	15	22	117	46	92	239	566
1963	10	27	8	33	195	36	115	291	715
1964	1	23	11	37	146	44	128	246	636
1965	3	18	14	33	128	58	131	301	686
1966	4	28	17	40	151	65	153	298	756

These figures reveal that the offences of murder, robbery, and riot are fairly common, but their case histories reveal that robberies were not committed by organised gangs or desperadoes, and murders were the result of old enmity and spontaneous petty disputes relating to land property. Kidnapping for ransom is on the decrease but riots have shown an increasing tendency for which no specific reason can be assigned. The number of dacoities has decreased after 1963 following the liquidation of the gangs of dacoits who had infested this district, and the menace is now more or less non-existent.

Among the minor crimes, the most common are burglary and theft including cattle lifting. These may be attributed to the general poverty of the people. Being a border district, the culprits escape arrest by crossing the border.

1 Statistical Abstract, Rājasthān, yearly volumes, 1958 onwards.

POLICE

Historical Background

Police duties, till the end of last century, were performed solely by the local militia and the jagir militia in their respective jurisdictions. With a view to securing the efficient detection, registration and punishment of a crime, a separate department known as the Girai was established in 1883 and was placed under a Superintendent; but the organisation of a military corps delite (Imperial Camel Corps) somewhat distracted attention from the police. It was primarily an arrangement to safeguard the triple border of Sīkar, Shekhawati (Jaipur) and Bikaner, as is evident from the establishment of *thanas* and 13 *chowkis* between Nima on the south to Khurdgot on the north in April 1880. They were further strengthened by the addition of camel sowars and Burkandazes. Owing to an increase in the number of cattle thefts and highway robberies in 1887-88, it was considered expedient to establish 16 additional *thanas* at various points both on the southern and the western borders, and for the first time, in some of the more notorious villages in the interior of the State. The *Thakurs* were also reminded of their duty to keep down crime within their respective jagirs. In addition, four *girdawars* or inspectors of police were appointed to supervise the work of police stations and out-posts. The number of police stations continued to grow as 24 additional *thanas* were established within next five years; one in 1888, six in 1889, six in 1891, five in 1892 and six in 1893. To regularise police organisation and its administration, a Police Code was promulgated on April 1, 1889, which was replaced by the Police Act in 1922.

The most outstanding problems that the police administration had to face during the 19th Century, included the non-co-operative attitude adopted by the officials of the former Rājputāna States who, instead of acting jointly for the suppression of crime, refused to follow up tracks brought to their border and did all they could to screen offenders of their own areas. This resulted in pointed charges and counter-charges brought against each other, which very often were without foundation. Disgruntled powerful elements frequently turned into gangs of desperadoes, roaming about fearlessly through the countryside and striking terror in all and sundry. These gangs were able to elude the authority because they had influential connections, and received protection of powerful elements. Then there were members of the criminal tribes, who operated and thrived under the

protective cover of the robber *Thakurs* who supplied them with horses and camels and concealed the plunder and the stolen property.

During the reign of Ratan Singh (1828-51), border dacoity was so rife in the south and south-east that a special force, called Shekha-wati Brigade, was raised to suppress it. The Brigade soon suppressed the activities of the *Thakurs* who were accustomed to violating the authority of the Rulers. The presence of the brigade greatly improved the controlling power of the Maharaja to reduce the turbulent nobles to submission. But the trouble again arose during the rule of Maharaja Sardar Singh (1851-72) who failed to improve his relations with *thakurs*. In 1869, the Political Agent intervened and affected a temporary settlement between the ruler and his *jagirdars* but a crisis arose in 1883 which could be settled only through the intervention of the British force from Nasirābād. It was during the rule of Ganga Singh that the authority of the Ruler was formally established and the feudal lords were shorn off their power and ability to challenge the Ruler's fiat and to provide a sanctuary to the criminals. Although the privilege of providing what may be called a crime sanctuary to protect and provide shelter to criminals was abolished in 1870, yet the connivance of the *thakurs* in certain crimes could not be curbed till they were stripped of their judicial powers. During the early years of Maharaja Ganga Singh's rule, the liquidation of a number of notorious gangs of dacoits and freebooters, and the adoption of ameliorative measures for the rehabilitation of the members of criminal tribes, brought the crime situation under control.

The Police Code was adopted in 1889. Police Stations were re-organised and the status of the investigating officers was raised in 1904, 1914 and 1916. An Inspector General of Police, for the State, was appointed for the first time in 1908-09. The total strength of police in that year was 948, consisting of an Inspector General, one District Superintendent, one Superintendent for city, four inspectors, fifty sub-inspectors, one court inspector, five assistant court inspectors, 29 jamadars, 230 *Sowars* 376 constables, twenty-six barkandez and seventy trackers (*khojis*) besides clerks and other establishment. The ratio of the them police force to population and area was one police man to 601.46 units of population and 23.98 sq. miles of area.

The police force continued to expand in order to meet the growing demands of increasing population for protection against crime,

To improve its working it was equipped from time to time with better weapons and means of communication which were machanised by 1947. Its total strength in 1947 was 2,310, consisting of an Inspector-General, 2 Deputy Inspectors General, six Superintendents, 3 Deputy and Assistant Superintendents, 30 inspectors, 116 sub-inspectors, 314 head constables, 154 literate constables, 425 mounted constables and 1259 foot constables. The ratio of the force to population and area at that time was 1 to 560 and 1 to 10.1 sq. miles respectively. The entire organisation cost Rs. 931.078 annually.

For purposes of police administration, besides the railway, the State was divided into six districts, viz., Bikaner, Suratgarh, Gangānagar, Rājgarh and Sujāngarh, each under a Superintendent of police except the Railway which was under an inspector. The superintendents were assisted by inspectors who supervised and inspected the work of the police stations and posts in their respective circles. There were 62 police stations and 19 out-posts besides the police lines at Bikaner and Gangānagar.

In each police station, there were usually one sub-inspector, one head constable (two in Gangānagar district where crime was heavy), one literate constable, besides *sowars*, constables and a *Khoji* (tracker). At each police post, one head constable, one literate constable in addition to *sowars*, constables and a *Khoji* (tracker) was provided.

The Police set-up on the eve of merger

In the year 1951 for the purpose of Police administration, the area comprising the district then was divided into two circles, 10 police stations and six poice out-posts, each under the charge of an inspector, a sub-inspector and a head constable respectively, with an overall control of the Superintendent of Police, who was assisted by a Deputy or an Assistant Superintendent of Police. Besides the Armed Police which included two inspectors, 13 Sub-Inspectors, 96 head constables and 183 constables, the total police strength consisted of 30 sub-inspectors), 70 head constables and 634 Constables.

The following statement shows the names and location of circles, stations and out-posts before merger.

Circle*	Police stations	Location of Police Out-Posts.
Circle Sadar Bikaner	1. Deshnoke	
	2. Napāsar	
	3. Pugal	
	4. Garsar	
	5. Diyātra	Udat
	6. Gajner	Kolāyat Palace Gajner
2. Circle Lunkaransar	1. Lunkaransar	Shaikhsar
	2. Lumbhana	
	3. Jastrāsar	
	4. Naukha	Pāhchun Guard Surpura.

After the merger of the erstwhile State of Bikaner in Rājasthān, the district was put under the control of a Superintendent of Police who worked under the supervision of the Deputy Inspector General of Police, Bikaner Range with headquarters at Bikaner. The total strength of the civil police force consisted of 32 sub-inspectors, 71 head constables, 601 constables, besides the armed police which included two inspectors, 13 sub-inspectors, 87 head constables and 317 constables.

Present Position

The police force in the districts, is divided into two categories, namely, civil police and armed police. The armed police deals mainly with dacoits and robbers and is also called upon to aid the civil police when a large scale breach of peace is threatened. The total strength of the police force in 1966, consisted of six inspectors, 45 sub-inspectors, 14 assistant sub-inspectors, 123 head constables and 804 constables and was distributed in two wings as under :

Armed Police	Inspector	1
	Sub-inspectors	8
	Head constables	50
	Constables	202
Civil Police	Inspectors	5
	Sub-inspectors	37
	Asstt. Sub-inspectors	14
	Head constables	73
	Constables	602

Besides, there are a Superintendent of Police and three Deputy Superintendents, who are common to both armed and civil force.

For the purpose of police administration, the district has been divided into three circles, thirteen police stations and twenty-four out-posts. Their details are given in Appendix

Traffic Police

A separate contingent of traffic police drawn from the civil police to direct and control the traffic is also in existence. The present strength of the traffic police consists of one sub-inspector, two head constables and 34 constables.

Mounted Police

There is no separate mounted police in the district but allowance at the rate of Rs. 40 per month has been sanctioned to 83 constables for maintaining their personal camels in police stations and out-posts for carrying out process service and patrolling.

Range Training School, Bikaner

The School was established by the Deputy Inspector General of Police Bikaner range in 1957 for the initial training and refresher course of constables. The average number of persons trained in refresher course annually is 159 while that of recruits is 110.

Railway Police

During the time of the erstwhile Bikaner State, the Railway Police was under the control of the Inspector General of Police. Under him an inspector who was responsible for the maintenance of law and order over 1421.13 km. (883.05 miles), railway track in the State territory. The total strength of the Railway Police was 75 and the average length falling within the beat of each police man was 18.84 km. (11.77 miles). After the merger of the erstwhile State of Bikaner, the State Railway Police formed part of the Northern Railway Police. It was put under the charge of the Superintendent of Railway Police, Rājasthān Circle, with headquarters at Ajmer. The total strength of the Railway Police, the number and location of police station and out-post are as follows :

	Sanctioned strength in 1966			
	Sub-Inspectors	Head Constables	Constables	Total
1. Police Station Bikaner	1	3	31	35
2. Out-post Lālgarh	—	1	6	7
Total	1	4	37	42

The following table gives the number of crimes committed on the railways after formation of Rājasthān. It will appear that despite the rise in population and increase in traffic and transport of goods on railways, the number of offences has not gone up and remains well under control¹.

Year	Theft in running trains	Theft at stations	Theft at goods yards	Misc. crimes	Total
1951	7	8	4	7	26
1952	10	5	10	10	35
1953	4	5	9	5	23
1954	3	6	7	2	18
1955	2	4	1	8	15
1956	5	5	4	11	25
1957	5	5	7	7	24
1958	3	6	6	11	26
1959	4	9	9	12	34
1960	3	—	8	8	19
1961	2	8	4	28	42
1962	3	4	6	12	25
1963	1	—	7	13	21
1964	2	7	5	9	23
1965	—	3	6	12	21
1966	8	11	10	1	30

1. Source—Office of the Superintendent of Police, Railways, Ajmer.

Anti-Corruption Organisation

Anti-Corruption Organisation at Bikaner was established in 1957 and the jurisdiction of Dy. Superintendent of Police, Anti-Corruption Department, Bikaner covers the districts of Bikaner, Churu and Nāgaur.

Since its inception till the end of June 1966, 277 complaints pertaining to district Bikaner were registered and 273 enquiries out of them were completed. During this period, 21 government servants were either punished departmentally or convicted by the courts on charges of corruption. 31 departmental enquiries against government servants are still pending with the Disciplinary Authorities while two cases are pending trial in the court of the District and Sessions Judge, Bikaner, who is empowered to try such cases under the Prevention of Corruption Act, 1947.

Rājasthān Armed Constabulary (R.A.C.)

The Rājasthān Armed Constabulary was raised as a special body of police under an act passed in 1950 to assist the regular police when ever the law and order situation threatened to get out of hand and especially to patrol the border areas. One R.A.C. battalion is posted in the district.

CIVIL DEFENCE

Civil Defence measures were introduced in the district in October 1962. The training courses for Civil Defence personnel were organised from 25th November, 1962 at two centres, namely, Dungar College, Bikaner and Municipal Council, Bikaner. 690 persons were accordingly trained in 1962. Again in 1965-66, Civil Defence measures were adopted after the out-break of hostilities between India and Pakistan. 96 persons were trained as instructors. About 30 of such trained inspectors were posted as Post Wardens and the rest were entrusted to train up Civil Defence workers. 500 persons were trained in 1965.

Warden Services

Warden services have been organised in the district with the appointment of twenty wardens and 346 persons as sectors-in-charge. 45 House Fire parties consisting of 180 persons, eight Reserve Parties consisting of 96 persons and 34 First Aid parties, consisting of 136 persons have also been formed. In addition, a combined Control

Room-cum-Report Centre has been set up in the Police lines, Bikaner. Refresher training in civil defence is also imparted at two centres—Town Hall and Sadul Multipurpose Higher Secondary School, Bikaner.

Home Guards

There are 757 Urban and 475 Rural Home Guards in the district. The services of these Home Guard volunteers were utilised during the emergency in 1965 for keeping a watch over all the vulnerable points in the district.

JAIL ADMINISTRATION

Historical Sketch

Before the jails came into existence, the convicts were discriminated on the basis of caste. The low caste prisoners were sometimes chained up like dogs in the open plains while others were confined in the *Kotwali* or police lock-up, where they occasionally received a small ration of food from the State, but more frequently, survived on public or private charity. Though pitiable it was not an unusual sight to see scores of them parading in the streets under police escort and receiving alms from the inhabitants. Better class of prisoners such as Thakurs and Rajputs, were kept in the fort in a place called Netasar, where though space was limited and sanitary conveniences scanty, adequate food was provided. No labour of any kind was exacted from them. Prisoners in the districts remained entirely at the mercy of the *havildar* of the *parganah* or the *thakurs*.

In 1872, an enclosure known as Dharpura, and originally intended as a home for stray cattle, was taken over and converted into a prison to accommodate about seventy-five inmates by erecting a couple of long-sheds. The prisoners were fairly fed and clad and given some occupation also. The sick were well cared for, but there was much over-crowding in the jail and the building had to be enlarged, first in 1879-80 and then continuously between 1887 and 1895, until there was eventually room for 590 persons (557 males and 33 females). The institution was placed under the supervision of the Civil Surgeon in 1888, and the prisoners from Natesar were transferred to it two years later. The additions made included barracks, bathing places, kitchens, latrines, factories, solitary cells, store-rooms, a hospital and all the adjuncts of a modern prison. Repairs and additions when necessary, were carried out from time to time. The aforesaid building which formerly formed the Central Jail now houses the District Jail, Bikaner.

In the districts, besides the usual lock-ups (*havalats*) at the head quarters of each tahsildar and naib-tahsildar, two larger prisons, one at Reni and the other at Sujāgarh were established, accommodating 86 and 66 inmates respectively. These were intended for lodging convicts who were sentenced to imprisonment for one year or less. The local *Nazims* were responsible for the management of these jails and proper care of prisoners. They were, however, inspected from time to time by the Civil Surgeon.

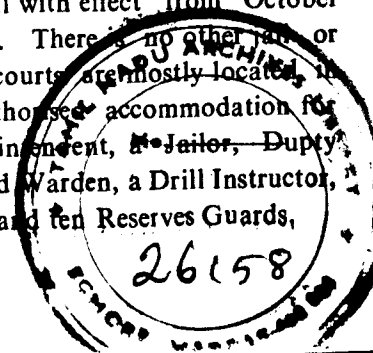
The most prominent land mark in the history of prison reforms was the enactment of Prison Act in 1927. This provided for the segregation of adolescent prisoners from those of advanced age, and their subsequent training. It empowered all Sessions Judges, Additional Sessions Judges and Magistrates of the First Class to pass orders detaining youthful prisoners in Borstal Institutions for a minimum term of two years, instead of sentencing them to imprisonment in the normal course. It further empowered the District Magistrates and the Appellate Courts to substitute detention in a Borstal Institution for imprisonment for a minimum term of two years. It also empowered the District Magistrates on the application of a Superintendent of a Jail, to order the removal of a youth, sentenced to transportation or rigorous imprisonment, to a Borstal Institution to serve the whole or any part of the unexpired portion of his sentence.

Jail Administration before merger

The administration of the Central Jail, Bikaner along with the four district jails in the State, was controlled by the Inspector-General of Prisons who was directly responsible to the Home Department of the State. The Superintendent of Central Jail, Bikaner was responsible for the efficient management and proper care of prisoners in accordance with the Bikaner Prisons Act, 1927.

Present Set-up

The Bikaner Jail which hitherto was the Central Jail of the area was converted into an A Class District Jail with effect from October 1952 as a result of integration of the State. There is no other jail or sub-jail in the district because the judicial courts are mostly located in Bikaner city. The District Jail has an authorised accommodation for 250 prisoners, and is staffed by a Superintendent, a Jailor, Deputy Jailor, three Assistant Jailors, a Chief Head Warden, a Drill Instructor, eight Head Wardens, sixty-eight Wardens and ten Reserves Guards,



Prison Discipline

Discipline is maintained in accordance with the Jail Regulations. The prisoners are housed together according to sex and only hardened ones are kept in solitary cells. Separate arrangement for housing juvenile prisoners below the age of 21 years exists but they are transferred to Model Jails at Ajmer and Udaipur. The special class of prisoners including political detainees are governed by the rules and orders of the Government according to their classification.

Welfare of Prisoners

In the erstwhile Bikaner State, the Central Jail, Bikaner (now District Jail) was described as one of the best managed and most sanitary in India. Prisoners grew their own vegetables in the garden attached to the Jail. The Jail Dispensary was established in 1887 with one medical officer and two compounders. There is a library in the prison from which books are supplied to the convicts on request. Facilities are extended to convicts who want to purchase books on religion and ethics at their own cost. Visits of relatives are restricted to once in a month. The Government has appointed a Board of Visitors who periodically visit the prison, and bring complaints to the notice of the authorities. Jail Panchayat, with eight panchas and a Sarpanch from amongst prisoners was established with a view to assisting the authorities in the management of the Jail, improving the habits of prisoners, making them feel more responsible and infusing discipline amongst them. The convict teacher imparts instruction to the inmates. All these activities are now looked after by a Prison Welfare Officer, from the social welfare department, and are a great help in promoting their well being.

Jail Industry

The principal jail industries are the weaving of cloth, rugs, camel and horse girths, woollen shawls (*loia*), blankets and carpets. Bikaner Jail carpets have earned a name in India and abroad for their fine texture and design and have been exported even to Europe and America. The Jail exhibits at the France-British Exhibition held in Paris in 1908 attracted considerable attention of the visitors. Three of the jail carpets were awarded the Grand Prix Diploma of Honour with Silver medals. The staff consists only of an Assistant Factory Manager, a weaving master, a dyer, a clipper and a skilled worker,

JUDICIAL ADMINISTRATION

Historical background of the Judicial System

The history of Judicial system is the district in the history of judiciary of the erstwhile State of Bikaner. Upto 1870 there was no organised system of judicial administration in the State. Justice was synonymous with the will of the Rulers, and Jagirdars were permitted to exercise similar powers within their respective jagir areas. Till the latter part of Maharaja Sardar Singh's rule (1851-72) administration of justice was very loose. The Ruler never cared to check his favourites from interfering in both Civil and Criminal cases. Every crime, even murder, was pardoned on payment of fine, and every person arrested, whether, guilty or not, was severely fined before he was released. In the district people were at the mercy of *Havildars* against whom it was not possible to get redress.¹

In 1871 three Courts (Civil, Criminal and Revenue) were established at Bikaner but they were not supported by the Maharaja who continued to permit interference by his favourites. No attempt to inflict a really deterrent punishment could be made till 1878.²

The Central Civil and Criminal Courts, however, were abolished in 1864-85 and replaced by *Nizamat* courts at Bikaner, Reni, Sujāgarh and Suratgarh. Appeals against their decisions were allowed to the *Ijlas Khas* or the Court of the Maharaja. It was after Maharaja Dungar Singh's death that an Appellate Court, presided over by the judges, was constituted. The Regency Council became the court of final appeal, taking the place of the old *Ijlas Khas*.

The hierarchy of judicial courts established by Regency during the minority of Maharaja Ganga Singh, consisted at the lowest rung, the courts of the eight naib-tahsildars who were third class magistrates and could try civil suits not exceeding Rs. 300 in value. Next higher

1. *Report on the Political Administration of Rajputana State, 1877-78.*

2. Major K. D. Erskine—"Even after Sardar Singh's demise, no improvement was noticeable and until 1878 the returns of the criminal courts showed a determination to make profit out of crime rather than an honest desire to inflict a really deterrent punishment".

Western Rajputana States, Residency and the Bikaner Agency Gazetteer, Vol. III-A, p. 358.

up the ladder came the eleven Tahsildars who were second class magistrates and could hear civil suits upto Rs. 500. The four *nazims* constituted the next stage and they were empowered to hear appeals against the decision in civil and criminal cases of the lower courts. They possessed first class magisterial powers and on civil side, exercised original jurisdiction in suits not exceeding Rs. 10,000 in value. The Appellate Court next, step in the hierarchy, was empowered to dispose of all appeals against the orders or findings of the *nazims*, tried all civil suits beyond their powers, and on the criminal side, could pass a sentence of ten years' imprisonment. The council was the highest court of appeal and exercised powers of revision in certain cases. It dealt with all murder cases submitting them with its opinion to the Maharaja, who alone could pass death sentence. The courts of honorary magistrates also existed, at Bikaner the capital, and the towns of Churu and Nohar, and had powers to hear and decide petty civil suits relating to immovable property, but the Bikaner Court alone had magisterial powers of the second class. On the civil side there was the Munsif's Court at Bikaner with powers to try suits not exceeding Rs. 500 in value. These courts were generally guided by the statutes in force in British India. The provisions of the Indian Penal Code, the Criminal Procedure Code, and the Evidence Act were introduced in the State *mutatis mutandis* in 1897. Among local laws may be mentioned the Civil Procedure Code of 1884, the Small Cause Courts Act, and the Gambling Act of 1889; the Registration Act of 1893; the Limitation Act of 1893; and the Stamp and Court Fees Act of 1900. These acts were later replaced by the Bikaner State Registration Act 1916, the Bikaner State Code of Civil Procedure 1920, the Bikaner State Limitation Act 1920, the Bikaner Public Gambling Act 1923 and the Bikaner Specific Relief Act 1923.

The system of judicial administration organised by Sir Charles Bayley during the minority of Maharaja Ganga Singh continued upto 1910. In 1910, a Chief Court at Bikaner was established and all the powers of the Council were transferred to it. It was superseded by a High Court at Bikaner on May 3, 1922. The High Court was the highest court of appeal and could exercise original jurisdiction in both Civil and Criminal cases of every description. The decision of the High Court was final in Civil cases except where the value of the suit exceeded Rs. 10,000 or a substantial question of law, custom or usage was involved. In criminal cases an appeal against the decision of the High

Court could be made to the Maharaja provided that sentence of death or imprisonment for period of ten years or more was awarded by the High Court. Sentences of death were subject to the confirmation of the Maharaja. In 1930, the Civil Courts Act envisaged the re-organisation of the courts of the District Judges and Munsifs. It empowered the courts of Munsifs to decide suits the value of which did not exceed one thousand rupees. The District Judges were empowered to take cognizance of all suits the value of which did not exceed ten thousand rupees. However, the Civil Courts were not empowered to try suits relating to the title, the rule of descent, succession and adoption of *pattedars* and their disputes with the State.

The Courts of Additional District Judge Sadar and of Honorary Munsif at Sadar were replaced by courts of City Magistrate and of second Munsif at Sadar. The Senior Munsif, Sadar was vested with powers of Small Cause Courts upto Rs. 100. All the Munsifs and the City Magistrates were vested with the powers of the First Class Magistrate and the City Magistrate was further empowered to try summarily cases under the Municipal Act and bye-laws.

Nazims, however, continued to exercise their power to try non-cognizable cases on complaints and challans under Section 107, 108, 109 and 110 of the Criminal Procedure Code. The tahsildars in the Sadar division, except the tahsildars of Sadar, were empowered to try criminal cases both cognizable and non-cognizable, and the Tahsildars at Lunkaransar, Nohar and Anupgarh continued to try civil suits up to the value of Rs. 200.

Thus, besides the High Court, exercising original appellate and revisional jurisdiction in all civil and criminal cases for the whole of the former State of Bikaner, the district administration of justice was carried on by the courts of District Judge, Sadar; Munsif and Additional Munsif, Sadar; City Magistrate, Bikaner, whose powers have already been dealt with in the foregoing pages.

After the formation of the State of Rājasthān, uniform pattern of judicial administration was adopted. The High Court of Judicature for the State of Rājasthān was established on June 21, 1949, abolishing simultaneously the High Court at Bikaner which was reduced to the status of a High Court Bench and was finally abolished with effect from the 22nd day of May, 1950. The subordinate courts were

re-organised by establishment of a hierarchy of criminal and civil courts in accordance with the provisions of the Rājasthān Code of Criminal Procedure Ordinance, 1949 and Civil Courts Ordinance, 1950. The reorganised set-up of the administration of justice in the district was headed by the District and Sessions Judge with headquarters at Bikaner. On the criminal side, the subordinate courts included those of an Assistant Sessions Judge; Additional Munsif Magistrate, Bikaner; District Magistrate; Sub-Divisional Magistrate for North and South Sub-Divisions with headquarters at Bikaner, and City Magistrate Bikaner. Tahsildars and Naib-tahsildars were invested with the powers of Second Class and Third Class Magistrates respectively. On the Civil side, the subordinate Courts established were those of an Assistant Civil Judge, Bikaner and Munsif Bikaner.

As no uniform system of Civil and Criminal laws existed in the United State of Rājasthān, the various laws enacted by the Government of India were adopted for the guidance of these courts. As such the provisions of the Indian Penal Code, Criminal Procedure Code, Indian Evidence Act, Civil Procedure Code, Stamp and Courts Fees Act and Limitation Act, were made applicable.

A significant change in the judicial administration was effected when as a result of recommendations of Ranawat Committee the executive officers were deprived of their powers to try cases under the Indian Penal Code in 1962, and Munsifs were invested with the powers First Class Magistrates.

Present Position

The District and Sessions Judge is the principal Civil and Criminal Court in the district and the Nyaya Panchayats form the lowest rung of the ladder. The table showing the civil and criminal jurisdiction of the various courts is given below :

Name of the Court	Place of sitting	Territorial jurisdiction
1. District & Sessions Judge, Bikaner	Bikaner	Bikaner District
2. Civil & Assistant Sessions Judge, Bikaner	Bikaner	Bikaner District
3. Munsif & Magistrate I Class, Bikaner	Bikaner	Bikaner District
4. Additional Munsif & Magistrate I Class	Bikaner	Bikaner District
5. Nyaya Panchayats	(Details available in Chapter XIV)	

Besides, the Collector and the Sub-Divisional Officers at Bikaner are Ex-officio District and Sub-Divisional Magistrates. They enforce the administrative provisions of the Criminal Procedure Code and also dispose of revenue matters and offences committed under various acts excluding the Indian Penal Code.

The following table shows the working of the judicial set-up in 19661 :

Name of the Court	No. of cases pending	No. of cases instituted	Total	Disposed of	Balance
CRIMINAL					
Sessions Courts, Bikaner					
1. Sessions Trials	8	29	37	26	11
2. Criminal Appeals	14	112	126	88	38
3. Criminal Revisions	15	72	87	72	15
Asstt. Sessions Judge, Bikaner					
1. Session's Trials	3	5	8	3	5
Munsif & Magistrate First Class, Bikaner					
1. Criminal Original	113	24	137	84	53
Additional Munsif & Magistrate, Bikaner					
1. Criminal Original	350	767	1117	664	453
CIVIL					
District Judge's Court, Bikaner					
1. Civil Original	34	29	63	35	28
2. Civil Appeal (Reg.)	122	93	215	144	71
3. Civil Appeal (Misc.)	39	57	96	74	22
Civil Judge's Court, Bikaner					
1. Civil Original	80	78	158	57	101
2. Civil Appeal (Reg.)	1	2	3	2	1
3. Civil Appeal (Misc.)	1	—	1	1	—
Munsif Court, Bikaner					
1. Civil Original	313	392	705	357	348
2. Execution	415	291	706	407	299

1. Source : Office of the District and Sessions Judge, Bikaner,

LEGAL PROFESSION

Mukhtars Māqbula were the only legal practitioners in the former State of Bikaner till the enactment of Legal Practitioners Act, 1925. Since then the enrolment of legal practitioners was restricted to law-graduates and those who qualified themselves as Vakils. The Act debarred the unqualified practitioners from practising in law courts unless and until they qualified themselves as Vakils. The number of lawyers in 1947 was 182 in the erstwhile Bikaner State. According to 1951 Census the number of persons in legal profession in the district was 92 (including pleaders, clerks of lawyers and petition writers). In 1961 the number increased to 148 (146 males and two females).

Bar Association

Bar Association, Bikaner was established in 1928. It is still the only association in the district as the various courts of law are located in the city. The association has its own President who nominates the Executive and the Speaker who presides over the general meetings. Both the President and the Speaker are elected by the members. The local number of members is 120.

APPENDIX

List of Police Stations and out-posts (Circlewise), Bikaner

Names of Circles	Names of Police Stations	Names of out-posts
I. Circle Office City	(1) Kotwali	1. Sadar 2. Sitla Gate 3. Goga Gate 4. Bāzār 5. Kote Gate 6. Phatak
	(2) Nayashahr	1. Nathusar Gate 2. Jassusar Gate 3. Teliwara 4. Sale Ki Holi
	(3) Sadar	1. Civil 2. Hanūmān Hata 3. Gangashahr
II. Circle Office North	(1) Lunkaransar	1. Shaikhsar 2. Kelan 1. Raner
	(2) Mahājan (3) Napāsar (4) Deshnoke (5) Jāmsar (6) Bajju (7) Pugal	1. Ranjitpura 2. Barsalpur 1. Sattāsar 2. Lunkha 3. Kumharwali
III. Circle Office South	(1) Naukha	1. Jasrāsar 2. Pānchūn
	(2) Diyātrā	
	(3) Gajner	1. Kolāyat

1. Source : Office of the Superintendent of Police, Bikaner,

CHAPTER XIII

OTHER DEPARTMENTS

STATE GOVERNMENT DEPARTMENTS

Office of the Colonisation Commissioner

With a view to implementing the Colonisation Programme of the area to be covered by Bhākhra and Rājasthān Canal Projects, this Department was established in May, 1955. In the beginning, a skeleton staff was provided for the department but with the increased work load due to acceleration in the construction programme, the staff was strengthened from time to time. At the head of this organisation is the Colonisation Commissioner who is responsible for implementing colonisation policy and for co-ordinating the planning and execution of development programmes in the canal area. He is assisted by Deputy Colonisation Commissioners who supervise all field operations and are directly responsible to the Commissioner. The work in the field has been divided in four sections each headed by an Assistant Colonisation Commissioner dealing with :

(1) Survey, (2) Land Acquisition, (3) Consolidation and (4) Colonisation (allotment). To assist them, there are fifteen Tahsildars and 30 *Naib* Tahsildars. In addition to these at the Headquarters there are one Accounts Officer; one Statistician; one Extra Assistant Commissioner Writs; one Extra Assistant Commissioner Administration and one Tahsildar Rehabilitation.

Office of the Superintending Engineer, Rājasthān Canal Project, Investigation Circle.

This Circle was established in July, 1964, under the charge of a Superintending Engineer for investigation and survey of Rājasthān Canal area for a particular length of the Canal.

The work has been divided in four parts and the following separate offices have been established in Bikaner for administrative convenience :

(1) SECOND STAGE INVESTIGATION DIVISION—This division is assigned with the work of survey and investigation of II Stage of Rājasthān Main Canal below mile 121.8 to the tail. It is headed by

an Executive Engineer who is assisted by four Assistant Engineers and usual complement of staff.

(2) CHHATTARGARH DIVISION—An Executive Engineer has been made incharge of this division who is responsible for the construction of a colony at Chhattargarh and survey of main canal from mile 95 to 121.8. The division is further split up into three sub-divisions, each of which is controlled by an Assistant Engineer. The headquarters of the office of the Executive Engineer is located at Chhattargarh in the district.

(3) OFFICE OF THE SENIOR GEOLOGIST—This office is controlled by a Senior Geologist and situated at Bikaner. Its primary function is to investigate the quality of the material used for construction of the canal including location of sites for kilns.

(4) LIFT CHANNEL INVESTIGATION DIVISION—This division along with its four sub-divisions functioned till the end of 1965 and has since been abolished. A Lift Irrigation Scheme to irrigate areas around Lunkaransar, Bikaner and Nāgaur was prepared by this division and the same has been submitted to the Government for sanction.

Town Planning Department

OFFICE OF THE DEPUTY TOWN PLANNER BIKANER—This office is entrusted with the task of preparing a regional plan for Rājasthān Canal regions and master plans and town planning schemes of various towns falling in the districts of Bikaner, Gangānagar, Churu and Jaisalmer. Time to time technical advice is also rendered to the municipalities and improvement trusts of the above mentioned districts.

Public Works Department

OFFICE OF THE ADDITIONAL CHIEF ENGINEER (PROJECTS)—The office was established in August 1965 with a view to gear up the road Programme. The area has been split up into two circles each of which is headed by a Superintending Engineer, known as Superintending Engineer-East, and Superintending Engineer-West. They are assisted by Executive Engineers, Assistant Engineers and other technical staff. Besides the Superintending Engineer, there are one Technical Assistant to Additional Chief Engineer, two Technical Assistants to Superintending Engineers, one Head Draftsman, one Junior Draftsman and other office staff. Since November 1967, the Headquarters of the Additional

Chief Engineer, P.W.D. Project, Bikaner and his Technical Assistant has been shifted to Jodhpur. The other subordinate offices are functioning as in the past.

OFFICE OF THE SUPERINTENDING ENGINEER (BUILDINGS AND ROADS)—The work of the Public Works Department in Bikaner division is looked after by a Superintending Engineer. He exercises administrative and technical control over the working of the Executive Engineers working within his jurisdiction. His staff consists of a Technical Assistant, two Computers, one Head Draftsman, one Junior Draftsman, one Tracer, one Office Superintendent and other office staff. Besides, a Land Acquisition Officer is also posted in the Public Works Department who acquires land required for the Public Works. He is assisted by an Assistant Land Acquisition Officer and a small office staff.

OFFICE OF THE EXECUTIVE ENGINEER (City Division)—Apart from the road repair and building programme, the main functions with which the Executive Engineer, City Division is entrusted are the repair and maintenance of Government buildings and construction of new ones. Recently, 6 'E' type quarters and 10 'F' type quarters have been constructed in Bikaner city in addition to the construction of 20 miles of road. The strength of the staff consists of four Assistant Engineers, 16 Overseers, two Computers, one Senior Draftsman, one Tracer and necessary complement of office staff.

Rājasthān State Electricity Board

OFFICE OF THE SUPERINTENDING ENGINEER, BIKANER CIRCLE—Bikaner is the headquarters of a Superintending Engineer who looks after the whole of the Bikaner circle comprising of Bikaner, Churu, Sri Gangānagar, Jhunjhunu, Sikar and part of Nāgaur district. He is responsible for control, operation, maintenance and construction of works connected with the supply of electricity. He is assisted by a Technical Assistant, Draftsman, a Tracer, Statistical Assistant and necessary complement of office staff. There is an Accounts Section and a Labour Officer working under him. The Accounts Section consists of an Accounts Officer assisted by an Assistant Accounts Officer and other office staff. The Labour Officer with the usual complement of staff is also posted to look after the welfare of the Labourers who also helps the administration in settling their disputes. Besides the above, he is the administrative Head of metre testing laboratory headed by the Assistant Engineer and circle stores headed by the Assistant Controller of Stores.

OFFICE OF THE EXECUTIVE ENGINEER—He is responsible for supply and distribution, within the district, of hydro-electric power received from Bhākha system. For construction work and laying of new lines, a separate Executive Engineer is posted here. The work of maintenance and distribution has been split up in three sub-divisions viz., (i) Generation and workshop, (ii) Grid sub-Station and (iii) Distribution, each of which is supervised by an Assistant Engineer.

Archives Department

This department with its headquarters at Bikaner, is headed by a Director. Prior to the formation of Rājasthān, each princely State had its own system of preserving records but a majority of them did not adopt any scientific system for doing so. After the formation of Rājasthān, the Department of Archives was established in 1955-56, with headquarters at Jaipur, having twenty archival repositories scattered all over Rājasthān. Later, however, it was felt that this arrangement meant a huge expenditure over the staff and avoidable inconvenience to research scholars. Accordingly, archives were centralised and the headquarters of the department were shifted to Bikaner in August, 1960, where a suitable building was made available.

The Director is assisted by an Assistant Director. Other staff consists of two Archivists, one Chemist, one Research Officer, one Assistant Archivists, one Assistant Chemist, two Research Scholars, one Librarian, one Office Superintendent, two Research Assistants, one Photographer, two Senior Technical Assistants, two Junior Technical Assistants, one Assistant Librarian, three Record Assistants, four Investigators, three Record Attendants, twelve Decipherists, four Preservation Assistants, four Laboratory Assistants and other office staff. The work of the department has been divided in six sections viz., (1) Administrative Wing, (2) Acquisition, Arrangement and Supply Service Wing, (3) Reference Wing, (4) Repairs and Rehabilitation wing, (5) Publication Wing and (6) Weeding Wing. Each wing is headed by an Officer-in-charge of the rank of a Superintendent.

Under the centralised pattern, there is a provision for five Intermediary Repositories at Alwar, Jaipur, Jodhpur, Udaipur and Kota. The staff allotted to each is U.D.C., L.D.C. and peon.

The micro filming section is an important working wing of the Rājasthān State Archives. The section is equipped with a micro

film machine and a Micro film Reader. The establishment of this wing is expected to serve a great cause to the benefit of the Research Scholars.

Excise Department

OFFICE OF THE DEPUTY COMMISSIONER, EXCISE—This office controls Bikaner, Gangānagar and Churu districts and exercises control over the District Excise Officers in its region. Each Excise Officer is assisted by one Assistant Excise Officer and other office staff. However, this office has now been abolished with effect from 1.7.1967.

OFFICE OF THE DISTRICT EXCISE OFFICER—The main function of this office is collection of excise duties levied on various items by the Government of Rājasthān. In this work, the District Excise Officer is assisted by six Circle Inspectors and one Excise Inspector. Besides, there are two Prosecuting Inspectors on the staff, who represent the department in cases under the Excise Act against defaulters in the courts.

Taxation Department

OFFICE OF THE DEPUTY COMMISSIONER (APPEALS)—COMMERCIAL TAXES—The office of the Deputy Commissioner was established in July, 1966. He hears appeals against the orders of assessment passed by Commercial Taxes Officers. His jurisdiction extends to five districts viz., Bikaner, Gangānagar, Sīkar, Jhunjhunu and Churu.

OFFICE OF THE COMMERCIAL TAXES OFFICER—The Commercial Taxes Officer collects taxes and duties prescribed under the Sales Tax Act, Passengers and Goods Tax Act, Entertainment Tax Act and the Electricity Duty. The Commercial Taxes Officer is assisted by three Assistant Commercial Taxes Officers. For purposes of collection of sales tax, Bikaner district is divided in two wards, viz., A and B. One Assistant Commercial Taxes Officer is incharge of each ward. Besides, there is one Assistant Commercial Taxes Officer for realisation of Passenger and Goods Taxes (RPGT). For survey, enquiries and other field-work, the Commercial Taxes Officer and Assistant Commercial Taxes Officers are assisted by five Commercial Taxes Inspectors. A separate post of Assistant Commercial Taxes Officer (Appeal) has also been created with effect from April 1967 to assist the Commercial Taxes Officer to plead the cases before the Dy. Commissioner (Appeals) headquartered at Bikaner since July, 1966. The office is manned with necessary complement of ministerial and class IV employees.

Other Departments

Waterworks

Drinking Water Supply Schemes of Bikaner city as well as of other towns and villages are administered by the Executive Engineer, Waterworks with headquarters at Bikaner. To assist him there are three Assistant Engineers who look after the pumping stations and also help in laying out new pipe lines and other construction work. They are assisted by a small complement of office staff. At present, the water-supply schemes are functioning at Bikaner, Gangānagar, Bhināsar, Deshnoke, Naukha, Kabra, Barsīsar, Rasīsar, Udasar, Surpura, Kalu, Sintal, Napasar, Pānchūn, Lunkaransar, Jasrāsar, Sarunda and Berāsar, Udairamsar, Lelamdesar, Mahajan, Kanolai, Ramsar and Sekhsar,

OFFICE OF THE ASSISTANT MINING ENGINEER—A Sub-Divisional Office of the Mines and Geology Department having jurisdiction over the districts of Bikaner, Gangangar and Churu is located here. It is headed by an Assistant Mining Engineer. Its main work comprises grants of mineral concessions, inspection of quarries and mines, Technical advice to various leasees, preparation of technical reports on the potentialities of mineral based industry, survey and investigation of mineral deposits. There is a separate drilling unit carrying drilling activities in the vicinity of Palāna for proving lignite deposit as to its extent, size and reserves etc. Drilling has been completed at Ravneri and Hira-ki-Dhani. The technical operations are supervised by a Deputy Drilling Engineer assisted by a Geologist.

The Assistant Mining Engineer is assisted by one Senior Mining Foreman, one Field Assistant, one Draftsman and a few clerks.

OFFICE OF THE INSPECTOR OF FACTORIES AND BOILERS—The jurisdiction of this office extends to two districts viz., Bikaner and Nāgaur and is charged with the duty to see that the provisions of the Factories Act, Payment of Wages Act, Indian Boilers Act, Employment of Children Act and Maternity Benefit Act alongwith the Rules thereunder, are implemented and enforced properly.

Labour Department

OFFICE OF THE LABOUR OFFICER—To implement the Labour laws in the factories covered under the Factories Act, one Labour Officer is posted in Bikaner. To assist him, there are two Labour Inspectors and a few clerks and peons.

EMPLOYMENT EXCHANGE—In the beginning, employment exchanges were started with a view to rehabilitating the disbanded soldiers after the Second World War, but in recent years, the agency has been utilised more or less, as a clearing house between the job-seekers and the employers. In Bikaner, the office was set up in the year 1946. It is at present headed by an Employment Officer who is assisted by a Junior Employment Officer. The other staff consists of one Guide and a few clerks and peons.

OFFICE OF THE PRINCIPAL, INDUSTRIAL TRAINING INSTITUTE—The Institute was established in the year 1959 under the Director General of Employment & Training, New Delhi but for administrative convenience, it is under the control of Department of Labour, Government of Rājasthān and the Director of Technical Education. The Institute is headed by a Principal who is assisted by one Group Instructor, two Senior Instructors and 13 Junior Instructors. His office staff consists of a few clerks.

At present, training is imparted to Turner, Moulder, Fitter, Electrician, Draughtsman, Carpenter, Blacksmith, Welder and Wireman. The duration of training for Draughtsman, Fitter, Electrician, Turner and Wireman is two years while for Moulder, Carpenter, Blacksmith and Welder, the duration of training is one year. The total intake capacity of the institute is 196.

OFFICE OF THE PRINCIPAL, PANCHAYATI RAJ TRAINING CENTRE—With a view to acquaint and train the non-official members and others of the Panchayati Raj institutions, a Training Centre headed by a Principal, was started in Bikaner in February, 1960. The Principal is assisted by two teachers in this work and training is imparted to members of Panchayat Samitis, Up-Sarpanchas, Chairmen and Members of Nyaya Panchayats and Secretaries of Panchayats.

Co-operative Department

OFFICE OF THE DEPUTY REGISTRAR, CO-OPERATIVE SOCIETIES—Bikaner is the seat of the Divisional Office headed by Deputy Registrar, Co-operative Societies who exercises administrative control over the Assistant Registrars of his area. The strength of the staff consists of a Special Auditor, a Technical Assistant, besides clerks and peons.

OFFICE OF THE ASSISTANT REGISTRAR, CO-OPERATIVE SOCIETIES—There is also an Assistant Registrar who is incharge of the execution

Other Departments

of all schemes of organising co-operative societies and promulgation of co-operative movement in the district.

Animal Husbandry Department

A divisional office of the Deputy Director is located at Bikaner which looks after the work of both the Bikaner and Jodhpur Divisions. At the district level, there are District Animal Husbandry Officers who are responsible for execution of development schemes in animal husbandry, but in Bikaner, there is no District Animal Husbandry Officer and the work of Bikaner district is looked after by the District Animal Husbandry Officer, Churu. The main activities of the District Animal Husbandry Officers are to maintain veterinary hospitals, castration of scrub male cattle and prevention of cattle disease in villages by inoculations and vaccinations. Animal Husbandry Extension Officers of the department are posted in each of Panchayat Samiti to attend to the activities of the department.

District Statistical Office

This office is engaged in collecting economic and statistical data concerning a wide variety of subjects relating to Bikaner district. A statistical booklet and an Annual Plan Progress Report is also brought out every year. Field studies relating to socio-economic aspects are also undertaken by the District Office. Besides, the data is also transmitted to the head office at Jaipur where it is processed and incorporated in various publications. This office also caters to the demand of District Administration, State Govt., Labour Bureau, National Sample Survey Organisation of the Union Cabinet Secretariat and other departments. At the district level, the office is headed by a District Statistician. The other members of the staff are one District Statistical Assistant, one Statistical Supervisor, two Field Inspectors, one Computer, one L.D.C. and one peon.

Devasthan

An Inspector supervises the work of this department at the district level. He is responsible for disbursement of grants and charities to the various religious institutions taken over by the State Government for management, and to others. The Inspector is assisted by a small complement of office staff.

Public Relations Office

Giving publicity to the Government policies and development

schemes is the main object of the Public Relations Officer in the district. For this purpose various modes of publicity like organising film shows, opening information centres, education through audio-visual means conducting publicity campaigns for special programmes viz., National Savings, Family Planning etc. are adopted. He is assisted by an Assistant Public Relations Officer, two Operators, one Enquiry Assistant and a few clerks and class IV employees. There is an information centre under the Public Relations Office. This centre serves the people through a reference reading room and reference library. There is information desk in the information centre from where all sorts of information is given. The information centre also relays the news of the All India Radio to about 30 places in the city. The centre also announces local news bulletin from time to time.

CENTRAL GOVERNMENT DEPARTMENTS

National Savings Organisation

Prior to the merger of erstwhile State of Bikaner, a scheme known as Small Savings Scheme was in vogue which was supervised by a National Savings Adviser, and National Savings Certificates were issued under this Scheme. After re-organisation, the set-up was changed and Regional Directors were posted in States. Bikaner was made a seat of Divisional Office headed by an Assistant Regional Director looking after the work of Bikaner, Gangānagar, Churu and Nāgaur districts. Directly subordinate to him are the District Organisers appointed at the district level, who are responsible for organising savings campaign in their respective areas.

The important schemes sponsored by the organisation are : (i) National Savings Certificates (ii) Twelve Years National Defence Certificates, (iii) Ten Years' Defence Deposit Certificates, (iv) Fifteen Years' Annuity Certificates, (v) Cumulative Time Deposit Scheme, (vi) Five Year's Fixed Deposit Scheme, (vii) Public Provident Fund Scheme, and (viii) Pay Roll Savings Scheme.

Customs Office

The main duty of the Customs Office located at Bikaner is to prevent smuggling from Pākistān, as it is a border district. A Superintendent of Customs is posted at Bikaner and the other staff consists of two Inspectors, two Sub-Inspectors, a few Sepoys and camel sowars. An Inspector is also stationed at Pugal. The staff also keeps liaison with border security force post on the border of the district and the district

police thus co-ordinating their activities with them. Besides, the custom organisation also keeps a watch over the smuggled goods which have found their way from places other than Indo-Pak border.

Labour Enforcement Office

The staff in this office consists of one Labour Enforcement Officer who is mainly responsible for the enforcement of all central labour enactments in the undertakings falling under central jurisdiction, and to look after the welfare of the employees therein.

Field Publicity Office

Controlled by the Directorate of Field Publicity, Ministry of Information & Broadcasting, Government of India, the unit stationed at Bikaner is one of eleven such units in Rajasthan. Its jurisdiction extends over Jhunjhunu and Nāgaur districts besides Bikaner. The staff consists of a Field Publicity Officer, a Project Operator, a clerk, a driver and a few class IV employees.

The unit is entrusted with two broad functions; firstly, to provide information, education and entertainment to the people through all available media of mass communications like film shows, cultural programmes, folk songs and dances, public meetings, group discussions, seminars, symposia, puppet shows, drama etc., and secondly, to apprise the Government of the reaction of the public to the policies and programmes adopted by it. At present special emphasis is being given to the organisation of intensive publicity campaigns of Food Production, Family Planning, National Savings, Developmental Works and National Integration and Solidarity (Defence oriented) in rural and border areas.

Chemical Laboratory—Fertiliser Corporation of India

A small Chemical Laboratory has been functioning at Bikaner for the analysis of gypsum samples under the direct control of the Chief Mining Engineer stationed at Jodhpur. Two gypsum mines viz., Kaoni and Bharru are being worked by the Corporation and gypsum produced is loaded from Nal Railway Station.

Office of the Locust Entomologist

A field station for investigations on locusts headed by a locusts entomologist was established at Bikaner in March, 1957. The main duties are to conduct investigations on the various aspects of desert locust biology and ecology in the field, with a view to acquiring information on its incidence, habits and behaviour in relation to its environments; and on improving methods for its control. In this work the

entomologist is assisted by a Deputy Locust Entomologist, five Technical Officers and five Junior Technical Assistants with the usual complement of ministerial staff and class IV servants.

Office of the Marketing Officer, Wool, Bristles and Goat Hair Grading Scheme

This office is responsible for inspection of wool, bristles and goat hair commodities exported from here and also to conduct market surveys for improvement in agricultural marketing. The Marketing Officer is helped by an Assistant Marketing Officer.

Office of the Sub-Divisional Officer, Telegraphs

An office of the Sub-Divisional Officer is stationed at Bikaner for supervising the working of the Telephone Exchanges and Telegraphs Offices within the area. His staff consists of a Construction Officer, Engineering Supervisor Telephones, Engineering Supervisor-Telegraphs, Observation Officer and other technical staff like Operators, Linesmen etc.

Divisional Superintendent, Northern Railway

Prior to merger, Bikaner had its own Railway system. After the integration with the Indian Railways it was amalgamated with the Northern Railways. The set-up of the Railways was re-organised in 1952 when a division of Northern Railways was established at Bikaner. The Divisional Superintendent is the head of the division. The work of Railways is divided into ten sections known as Engineering Branch, Mechanical Branch, Commercial Branch, Medical Branch, Electrical Branch, Signal and Tele-communications Branch, Security Branch, Accounts Branch, Personnel Branch and Transportation Branch. At Lalgah in Bikaner district, a Loco shed is maintained to keep the locomotives in the working order.



CHAPTER XIV

LOCAL SELF-GOVERNMENT

HISTORY

Though there were small committees and boards in the erstwhile Bikaner State in the beginning of the first decade of the twentieth century, there were no municipal committees in the true sense of the term. The most important municipal committee was at Bikaner, the capital of the State. It was established in 1889, prior to which sanitary arrangements were supervised by either *Kotwal* or one of the Hospital Assistants or a special officer. These Committees were mainly responsible for conservancy and lighting arrangements, prevention of encroachments on public thoroughfares, settlement of petty disputes relating to easements, and the establishment and control of slaughter-houses and markets. In 1917 the then State Government sanctioned more powers to the Municipalities : they were given practically independent control over finances and were authorised to raise necessary funds by such taxation as was sanctioned by the Government from time to time; the number of non-official members was also increased.

With a view to placing the municipal administration on a footing more in conformity with modern ideals and requirements, Bikaner Municipal Act was passed in July 1923. The year 1923 was memorable in the history of the Municipal administration in the State because elective system was introduced in the State for the first time. However, the elections were held in 1925. The Act contemplated the establishment of both municipal boards and municipal committees. Under its provisions each municipal board was to consist of members not less than 9 in number, both nominated and elected, and unless the Government otherwise directed, not less than 3/5 of the seats were to be open to election¹.

The municipal Board franchise was confined to those who owned house property, situated within Bikaner Municipality, of a value of not, less than Rs. 1000 and in other municipalities of a value of not less

1. Biswas Chittranjan, *Bikaner the Land of Marwaris*, Indian Publishing House, Calcutta p. 62.

than Rs. 500 or who paid a rent of not less than Rs. 10 per month, in Sadar and Rs. 5 per month in the district municipalities for a house or a shop within the municipal area, or who were in the service of His Highness the Maharaja of Bikaner, drawing a salary of not less than Rs. 50 or were graduates of any recognised University, or licensed *vakils* or *mukhtyars* of the Bikaner High Court provided that they were not under the age of 21. Females were not qualified to vote¹.

The powers of Municipal Boards were further enhanced by an amendment in the Act, in 1928, in pursuance of which the Municipal Board, Bikaner appointed a Health Officer to look after the sanitation of the town, and an Executive Officer to look into the proper discharge of work in the various departments. Besides a secretary and an engineer were also appointed².

The main sources of income of the Municipalities were Octroi duty on imported articles, terminal tax, tongas and hackney carriages tax, *teh bazari* tax³, duty on export of grains and interest on their surplus balances.

These local bodies were responsible for such services as the improvement of sanitation, lighting of public streets, construction of wells and *diggis* for drinking water, maintenance of chowkidars for watch and ward, granting aid to local schools and dispensaries and construction and maintenance of roads and thoroughfares.

The number of municipalities in the former Bikaner State in 1924-25 was 15. Of these, Bikaner was the only municipality covered by the area now included in the present Bikaner district. According to the Administration Report for the year 1944-45, besides the Bikaner Municipal Board, there were 26 municipalities in the former Bikaner State. Of these Bhināsar, Gangashahr, Lunkaransar, Napāsar and Naukha were in the area which now forms part of Bikaner district. Gangashahr municipality was established in 1939, Napāsar in 1941 and Naukha, Lunkaransar and Bhināsar in 1942-43.⁴

After the formation of Rājasthān, the Rājasthān Town Municipalities Act was enacted in 1951 to establish uniform pattern of Local

Self-Governing Institutions in the State except the city municipalities. It introduced the principle of election by adult franchise and all the members were elected for the first time in 1952. The Rājasthān Town Municipalities Act, 1959 superseded the existing City Municipalities and established a uniform system of municipal administration. Municipal Boards have been constituted for a town having a population exceeding 8000 and municipal councils for towns having a population of more than 50,000. Municipal Boards at Lunkaransar and Napāsar, having less than the minimum population required for the establishment of a Municipal Board, were accordingly converted into Panchayats. The number of municipalities in this district was reduced to four in the year 1958 but increased to five in 1959 when a Municipal Board was established at Deshnok. Under the Provisions of this Act, Municipalities are empowered to employ their own staff but an Executive Officer in case of a Municipal Board, and a Municipal Commissioner in the case of a Municipal Council are appointed by the State Government.

It is obligatory on the part of Municipalities to levy these taxes : (1) house tax (2) octroi duty and (3) tax on professions and callings. They are, however, authorised to levy (1) tax on vehicles (2) tax on conveyance, and tax on conservancy service, and others, at their option. Their resources are further supplemented by the Government in the form of an annual subsidy, and loans from time to time.

There are five municipalities in the district, namely Municipal Council, Bikaner and Municipal Boards at Gangashahr, Naukha, Deshnok and Bhināsar.

Municipal Council, Bikaner City

HISTORY—The municipal committee at Bikaner was established in 1889.¹ It consisted of officials and nominated non-official members with an official-Chairman as its head. The Municipal Committee was, however, reckoned more or less as department of the State. In 1917, the Municipal Board was separated from the Government and a State grant was made for Municipal funds. The number of members was raised to 21. All of them were nominated by the

1. Erskine, K.D., *Rajputana Gazetteers*, Vol. III—A, *The Western Rājputāna States and the Bikaner Agency* p. 269.

1. Biswas, Chittranjan *Bikaner the Land of Marwaris*, The Indian Publishing House Calcutta p-62

2. *Four Decades of Progress in Bikaner State*, 1937, p. 76

3. Rent for the use of land for erecting temporary shops.

4. *Report on the Administration of the Bikaner State*, 1942-43, p. 12,

Government. In 1923, the Municipal Act was passed and the number of the members was raised from 21 to 40, 25 elected and 15 nominated. With the introduction of the elected representatives in the Bikaner Municipal Board in 1925, its powers and privileges were also enhanced, and the official Vice-President was permanently replaced by a non-official Vice-President in 1929. The Municipal Amendment Act of 1928 conferred more powers on the Municipal Board and the services of qualified whole time Health Officers, an Engineer and a Secretary, were requisitioned to enable the Board to discharge its duties more efficiently.¹

Till 1947, the Bikaner Municipality consisted of 15 nominated and 25 elected members. The nominated members included a President, nine officials and five non-official members, while the elected members included a Vice-President. In 1947, the President was elected for the first time. In 1952 all the members were elected on the basis of adult franchise. Since 1959, the Municipality is regulated by the provisions of the Rājasthān Town Municipalities Act, 1959. Before its supersession in 1967 by the Government of Rājasthān it consisted of 36 elected and one co-opted members. Since then it is administered by an administrator appointed by the Government of Rājasthān.

SANITATION—Powlett found (1874) the sanitary condition of the city 'very bad'. People used earthen vessels for night stools and used to empty them into the streets from the house tops in the morning regardless of the passers-by. The rudimentary sanitary arrangements as existed were supervised by either the *Kotwal*, or one of the Hospital Assistants, or a special officer, and required considerable reform. Consequently, iron carts to remove refuse and filth and large staff of sweepers was employed in 1885, and new and more suitable places were selected for collecting and depositing the night-soil and sweepings. In 1889, Municipal Committee was established to improve sanitary conditions of the city. Since then, greater attention has been paid to sanitation and special measures have been adopted from time to time, such as construction of additional public latrines at suitable localities, addition of conservancy carts and *dhols*, and additions in the conservancy staff. In 1924 an incinerator for burning refuse, and an epidiascope in 1927, were added

to improve the sanitary conditions. In 1939-40 steps were taken to remove Khara-Lime-Kilns from their original places to more distant sites, and a hydrant was fixed at Nawa Kuwa for flushing drains. Further, measures were adopted for constant inspection of public places, such as hotels, sweat-meat shops and aerated water factories. Attempts were also made to regularly treat all the marshy places, pits and pools with malarial oil, and conservancy gang of 15 labourers and one *Nigranidar* was especially organised in 1942-45 for levelling uneven places in the city, and to make an unobstructed channel for flow of water. Soakpits for the disposal of sullage water were constructed. The Municipality Sullage drains, were constructed by the Municipality and the Public Works Department from time to time. Efforts have also been made to improve the sanitary conditions of the city by employing more staff and better equipment. In 1965-66 the Municipality had in its service a Health Officer, Six Inspectors, 40 Jamadars, 572 Sweepers and nine drivers for the proper maintenance of sanitation in the city.

LIGHT—Lighting arrangements are made by the Rājasthān State Electricity Board, Bikaner, and the municipality pays them for the maintenance. There are, 1,520 electric lamp posts, in the year 1965-66 The electricity is supplied from the Bikaner grid.

WATER-SUPPLY—Water-supply is arranged by the Government Waterworks Department. Water is supplied from several wells by pumping water through electricity driven pumps. The output of these pumps is fed into a common pipe-work system connected at one end with a large covered storage reservoir. In 1951, there were 23 such wells to supply 24,00,000 gallons every day. In 1958-59 a scheme to improve water-supply was implemented and nine wells were repaired, four over-head tanks and three reservoirs were constructed to increase water-supply from 20 gallons to 30 gallons per head per day.

FINANCIAL POSITION—The income and expenditure of the municipal council for a number of selected years is given in appendix I. The figures given in the appendix show that the financial position of the municipal-council is sound.

OFFICE ESTABLISHMENT—The office establishment has six sections namely, General Section, Accounts section, P. W. D. section, Store section, Health section and Tax section. The strength of these sections is as follows :

1. *Four Decades of Progress in Bikaner*, p. 76.

GENERAL SECTION—One Commissioner, one office superintendent, three upper division clerks, five lower division clerks and 13 class IV servants.

2. **ACCOUNTS SECTION**—One Accountant, six lower division clerks, three class IV servants.

3. **P. W.D. SECTION**—One Overseer, two Surveyors, one Mistri, one upper division clerk and nine class IV servants.

4. **STORE SECTION**—one mechanic, six drivers, two Khalasis, two fitters, three helpers, nine class IV servants and one light inspector.

5. **HEALTH SECTION**—Three sanitary inspectors, three assistant sanitary inspectors, two lower division clerks, two class four servants and 32 jamadars.

6. **TAX SECTION**—One Revenue Officer, two assessors, five house tax inspectors, one revenue inspector, one assistant revenue inspector, five *nakedars*, 22 assistant *nakedaras*, three lower division clerks, 24 class four servants, seven recovery jamadars and three *naka* guards.

EDUCATION—Bikaner municipality is running sixteen compulsory primary schools. These schools were started by the municipality under the provisions of the Bikaner Compulsory Primary Education Act, 1928. The Government of the erstwhile State of Bikaner paid two-thirds of the maintenance charges of these schools. Seventy per cent of the expenses are still subsidised by the State Government on the running of these schools.

FIRE BRIGADE—The Municipal Council is maintaining one fire engine and a fire brigade, consisting of 12 firemen and three drivers to meet the eventualities.

MUNICIPAL BOARDS

Municipal Board, Gangashahr

Municipality at Gangashahr was established in 1939 with eleven members, all nominated by the Government. The *Nazim* Sadar was the ex-officio President of the municipal board. In 1951 the Rājasthān Town Municipality Act, 1951 (which was replaced by Rājasthān Municipality Act, 1959) was made applicable and all the members of municipality were elected in 1952,

The Municipal Board consisted of 12 elected and two co-opted members. At present it is administered by the sub-divisional officer, Bikaner north, Bikaner. The functions of the Municipal Board are confined to lighting the streets and looking after the sanitary conditions. For these purposes the board employs 24 sweepers and maintains 151 electricity lamp posts. Lighting arrangements are made by Rājasthān State Electricity Board, Bikaner and the municipal board pays fixed charges for the same. The Municipal Board has contributed Rs. 1,00,000 (Rs. 50,000 from funds of the board and Rs. 50,000 donated by the public) towards the construction of pipe line for the supply water of from of waterworks, Bikaner. During the year 1964-65 and 1965-66 the income of the Municipality was Rs. 1,07,300 and Rs. 1,35,900 respectively while the expenditure for the corresponding years was Rs. 1,07,300 and 1,37,100.

Municipal Board, Bhinasar

HISTORY—Municipality at Bhinasar was established in 1942-43. It consisted of a President, a Vice-President and seven members, all nominated. In 1951 the provisions of Rājasthān Town Municipalities Act, 1951 (which was replaced by Rājasthān Municipality Act, 1959) were made applicable and the members elected for the first time in 1952 by adult franchise.

The municipal board consisted of ten elected and two co-opted female members before its supersession by the Government of Rājasthān in 1967. Since then it is administered by sub-divisional officer, Bikaner-South, Bikaner. The municipality looks after sanitation and lighting of the public streets only and maintains 57 electric lamp posts. It has also engaged one *Jamadar* and nine sweepers for scavenging and other sanitary works.

FINANCIAL POSITION—During the year 1964-65, the income of the board was Rs. 30,300 and in 1965-66 was Rs. 76,700; the expenditure of the Board for these two years was Rs. 30,300 and Rs. 83,100 respectively.

Municipal Board, Naukha

HISTORY—Naukha municipality was established in 1942-43 as a purely nominated body, consisting of nine members, including a President and a Vice-President. In 1951, the provisions of the Rājasthān Town Municipality Act, 1951 were made applicable and the members were for the first time elected by adult franchise in 1952.

At present the board consists of ten elected and two co-opted female members. The board engages one *Jamadar* and 38 sweepers for cleaning streets and other sanitary works. The strength of the employees in other sections, namely, office establishment is 8, tax-collection 12 and water-supply seven. A gardener is also employed by the board.

The functions of the municipal board are confined to lighting the streets, looking after the sanitary conditions and park facilities.

FINANCIAL POSITION—The total income and expenditure of the municipality for the years 1964-65 and 1965-66 are given below :

Year	Income (Rs.)	Expenditure (Rs.)
1964-65	2,56,400	2,56,400
1965-66	1,40,200	1,60,300

Municipal Board, Deshnoke

HISTORY—Municipality at Deshnoke was established in 1957. It comprises ten elected and two co-opted women members. The functions of the municipal board are confined to sanitation, lighting the streets and making arrangements for public water stands to facilitate the supply of water. It engages one *Jamadar* and 16 sweepers for cleaning the streets and other sanitary works, maintains 74 lamp-posts and one mercury light and a gardener for looking after a public park. The strength of employees in other sections namely office establishment and tax collection is six and two respectively. The income of the Board during 1964-65 and 1965-6 was Rs. 25,800 and Rs. 17,800 respectively while the expenditure during the same period was Rs. 25,800 and Rs. 21,600 respectively.

DISTRICT BOARDS

HISTORY—Establishment of district boards in rural areas under the District Board Act, 1935 formed another step towards progressive realisation of local self-government. The franchise, however, was limited to (i) *Pattedars* ; (ii) every land-holder *Khatedar* or *Asami* in *Khalsa* villages who paid or was liable to pay Rs. 25 as rent annually (iii) every *Chhutbhai* or land-holder or tenant in alienated villages who paid or was liable to pay Rs. 33 as rent annually ; (iv) every

tenant of agricultural land who was a subject of Bikaner State and who paid or was liable to pay Rs. 50 as rent annually and (v) every person ordinarily residing in the rural area who had passed middle school examination, or any other examination equivalent to, or higher than the middle school standard. Such persons must be above 21 years of age, of sound mind adjudged by a competent court and subjects of Bikaner State¹. Between 1939-40 and 1941-42 the number of District Boards was raised to five from one. They were: Ganganagar, Sadar, Rajgarh, Sujargarh and Suratgarh, Bikaner Board (Sadar) is described below :

District Board, Bikaner

HISTORY—The District Board Bikaner which was constituted in 1942 consisted of 45 members, out of whom 33 were elected. The income of the Board was derived from the following sources :

(i) a levy of 6 pies (3 paise) per rupee on land revenue in *Khalsa* villages and tribute from *Patta* villages ; (ii) a charge of 1 pie (half paise) per rupee on income in case of *Betalab* village.

POWERS AND LIMITATIONS—The Chairman of the board was appointed by the Government. The vice-chairman was elected by members from among themselves but the appointment was subject to the approval of the Government. The budget of the board was to be placed before the Government who could sanction, modify or reject it. The revenue-commissioner could not only inspect the property, documents and records but could prohibit the execution or further execution of any resolution or order if in his opinion such resolution or order was of a nature to cause or tend to cause obstruction, annoyance or injury to the public, or to a class or body of persons lawfully employed, or danger to human life, health or safety, or likely to cause a riot or affray.

PANCHAYATS

HISTORY—Steps for the establishment of panchayats were taken in 1928 when Bikaner Village Panchayat Act was enacted with the aim of making village the lowest Administration Unit. The State Government was authorised to declare any area to be a panchayat area. Panchayats established under the Act, consisted of not less than five or more than nine elected members and were authorised

1. Biswas Chittranjan : *Bikaner the land of the Marwaris*, pp. 70-71.

to hear civil suits for sums not exceeding Rs. 50 and could take cognizance of minor offences, like (i) riot, (ii) committing a public nuisance, (iii) obscene acts and songs, (iv) assault or use of criminal force (v) theft of property not exceeding ten rupees, (vi) receiving stolen property (vii) criminal intimidation and (viii) outraging the modesty of woman. The maximum penalties inflicted by any panchayat could not exceed Rs. 10 or double the damage or loss caused whichever was greater. The Act debarred legal practitioners to appear on behalf of any party and required parties to appear personally or through agents, such as a servant or a partner or a relative. Cases were to be decided by majority in case of disagreement among the members of the panchayat and no court fee was charged. Besides, the administrative duties and powers of panchayats included the management of schools, supply of drinking water, protection of tanks, maintenance of burial grounds and planting and preservation of trees. The activities of the panchayats were financed by the village fund in every Panchayat Circle consisting of sums contributed by the Government or local bodies or private persons, and the receipts on account of the cess not exceeding 6 pies per rupee of the land revenue, levied by a Panchayat.¹

The Revenue Minister exercised general powers of inspection, supervision and control in the working of the panchayats.² The Government had powers to suspend or dissolve any panchayat on reasonable grounds. Panchayats came to be established immediately at Surpura, Napāsar, Palāna, Panchu, Jarasar, Shaikhsar, Bada Bas, Runia and Khokhera in his district, and their number was eight in 1936 which was raised to 49 by the time the State was merged. Details are given in the appendix II.

Re-organisation of Panchayat System

The panchayat system was re-organised in 1953 under the Rājasthān Panchayat Act, 1953 by setting up eighty-five panchayats, and four tahsil panchayats (to exercise supervision and control) at the headquarters of all tahsils. The tahsil panchayats were replaced by panchayat samitis in 1959.

Panchayats

The Act provided for the division of the Panchayat Circle into wards and a panch to be elected from each ward. The minimum

1. Biswas Chitraranjan, *Bikaner the Land of Marwaris*, pp. 71-12.

2. *Ibid* p. 73.

number of panchas required for the formation of a panchayat was five, and the maximum fifteen, besides a sarpanch. The term of a panchayat was three years, which could be extended by one year. The panchas and sarpanchas were elected directly by the voters of the panchayat area. Up-sarpanch was elected from amongst the members. In the beginning, elections were held by show of hands but the system was later changed to that by a secret ballot. Provision was made for the nomination of a panch from scheduled castes, if no such member was elected. Women were also nominated in the same way.

The panchayats were expected to discharge a number of obligatory and discretionary functions. The obligatory functions were: the construction, repair and maintenance of public wells and ponds, sanitation, street maintenance and light, registration of births, deaths and marriages, regulation of meals and establishment and maintenance of primary schools; while the discretionary functions included: planning, development of co-operation, famine relief, establishment of reading rooms and measures designed to promote the moral and material well-being of the people. The panchayats could also try suits upto the value of Rs. 100, exercise the powers of third class magistrate except powers to order imprisonment in criminal cases, impose fines upto a maximum of Rs. 15 in administrative cases and upto Rs. 50 in judicial cases.

Tahsil Panchayats

Each tahsil panchayat consisted of a sarpanch and six to eight panchas elected out of an electoral college consisting of the panchas and sarpanchas of the panchayats in that tahsil. The tahsil panchayats heard appeals against the orders, decisions, decrees or sentences passed by the panchayats.

Democratic Decentralisation

The Rājasthān Panchayat Samitis and Zila Parishads Act, 1959, which has introduced a three tier system of local self-government, was inaugurated on October 2, 1959. Under the Act. One hundred twenty three panchayats at the village level, four panchayat samitis at the tahsil level and a zila parishad at the district level have been established in this district.¹

1. *Panchayati Rāj in Rājasthān*, p. 33.

Panchayats Under the New Set-up

Panchayats have now been made co-terminus with the smallest unit of revenue administration, that is a *patwar* circle. A village panchayat serves population ranging between 1500 to 2000 and consists of eight to fifteen panchas excluding the Sarpanch. Provision has been made to co-opt two women panchas; and one scheduled caste panch and one scheduled tribe panch in areas where their population exceeds 5 per cent of the total population. The sources of revenue of panchayats are taxes, cattle pond, court fees, fines, fairs, sale of land and share from the land revenue.

Where the former panchayats had been vested with both developmental and judicial functions, the present panchayats are invested with the former only, and the judicial functions are performed by the newly constituted nyaya panchayats. The panchayat samitis are primary units for planning and local development while the main function of the zila parishad is co-ordination.

Elections were held in December, 1,960 when 1029 panchas were elected in 123 panchayats. The panchayat set-up was for the first time organised on the basis of adult suffrage. The details of panchayat samitis, nyaya panchayats and village panchayats are given below¹ :

(Number)

S. No.	Panchayat Samiti	Nyaya Panchayat	Village Panchayat	Total
1.	Bikaner	7	33	40
2.	Naukha	8	41	49
3.	Kolāyat	5	23	28
4.	Lunkaransar	6	26	32
Total		26	123	149

Nyaya Panchayats

To separate judicial functions from the executive at the village level, twenty-six nyaya panchayats in the district having jurisdiction over an area of five to seven panchayats, have been

1. Source : Office of the Secretary Zila Parishad, Bikaner,

established to administer civil and criminal justice. Out of these seven are in Bikaner, eight in Naukha, five in Kolāyat and six in Lunkaransar panchayat samitis (name and location of nyaya panchayats are given in appendix III). The members are elected by the constituent panchayats, on the basis of one each. Nyaya panchayat functions through benches of three members. Chairman of the nyaya panchayat is elected by members from amongst themselves. He constitutes benches and assigns area to each bench. He can vary the jurisdiction of the benches and their membership whenever necessary. Nyaya panchayats function through benches of three members for the area assigned to each. They have been empowered to try certain minor criminal offences (specified in a schedule attached to the Act)¹ and to impose fines not exceeding Rs. 50. In the event of non-payment, the matter is brought to the notice of the sub-divisional magistrate who makes recovery as in the case of fines imposed by himself. In civil cases these panchayats have jurisdiction to try suits not exceeding Rs. 250 in value. There is no provision for appeal against the orders of nyaya panchayat, but revision can be filed with the *munsif* in civil suits and magistrate of the 1st-Class in criminal cases.

PANCHAYAT SAMITIS

History

Every panchayat samiti consists of all Sarpanchas of the panchayats and *Krishi Nipun* as ex-officio members. Provision has been made to co-opt two women, two persons from Scheduled Castes and Tribes and two persons having experience in administration, public life or rural development, one representative of co-operative societies and one representative of the gramdan villages. Panchayat samitis have full powers to frame their budgets and formulate their annual plans of development within the frame-work of the State Plan. The samiti plan covers agriculture, animal husbandry, co-operation, minor

1. Offences under sections 140, 163, 172, 174, 175, 178, 179, 180, 188, 202, 228, 264, 265, 266, 267, 269, 277, 278, 279, 283, 285, 286, 288, 289, 290, 294, 323, 334, 336, 341, 352, 356, 357, 358, 374, 379, 380, 381, 403, 411, 426, 430, 447, 448, 461, 504, 506, 509, 510 of the Indian Penal Code, 1860 and Offences under the Cattle Trespass Act, 1871, the Vaccination Act, 1880, Prevention of Cruelty to Animals Act, 1890, Rājasthān Public Gambling Ordinance, 1949, Rājasthān Prevention of Juvenile Smoking Act, 1950 and any other offence under any law declared by the State Government to be triable by nyaya panchayat,

irrigation works, village industries, primary education, local communication, sanitation, health and medical relief and local amenities.

Financial Resources

The income of the panchayat samitis is derived from State grants, people's participation in the form of labour, contributions; and taxes on fairs, trades and professions, industries and entertainment; cesses on rent of agricultural land, primary education and leases granted for the collection of bones.

PANCHAYAT SAMITI, BIKANER—Its jurisdiction extends to 33 village panchayats (names are given in the appendix III and it consists of 33 sarpanchas and seven co-opted members (two each from women and Scheduled Castes and three specialists). The panchayat samiti covers a development block which is in the first stage.

PANCHAYAT SAMITI, NAUKHA—It comprises 41 village panchayats and consists of 41 sarpanchas and seven co-opted members, two each from women and scheduled castes, and three specialists. The development block of the panchayat samiti is in the second stage.

PANCHAYAT SAMITI, KOLAYAT—It comprises 23 village panchayats (names are given in the appendix III), and consists of 23 sarpanchas and seven co-opted members (two each from women and scheduled castes and three specialists). The panchayat samiti covers a development block which is in the first stage.

PANCHAYAT SAMITI LUNKARNSAR—This panchayat samiti comprises 26 village panchayats (names are given in appendix III, and it consists of 26 sarpanchas and 5 co-opted members (two women and three specialists). The development block of the panchayat samiti is in second stage.

Zila Parishad

A zila parishad consists of all Pradhans of the panchayat samitis, members of Parliament and members of State Legislature Assembly in the district, and president of the District Central Co-operative Bank, as the ex-officio members. Collector of the district is the ex-officio non-voting member. Provision has been made to co-opt two women, one member from the scheduled castes, one from scheduled tribes in areas where their population exceeds 5 per cent of the total population, and two persons of experience in administration,

public life and rural development. Co-opted members are elected by ex-officio members by secret ballot.

The Bikaner zila parishad was constituted on October 2, 1959 under the democratic decentralisation scheme. It superseded the Bikaner District Board. It consists of 15 members (after the Panchayat elections in 1965), which include a pramukh, an up-pramukh, two members of Parliament, five members of State Legislative Assembly, four pradhans of the panchayat samitis in the district, the president, Co-operative Bank in the district and Collector who is ex-officio non-voting member.

The zila parishad has not been assigned any executive functions. Its main role is to supervise and co-ordinate the work of four panchayat samitis in the district, to maintain liaison between the State Government on the one hand and the panchayats and panchayat-samitis on the other, and to prepare a consolidated district plan on the basis of the plans of the panchayat samitis.

APPENDIX I

Income and expenditure of the Municipal Council, Bikaner
for a number of selected years.¹

Year	(Rs.)	
	Income	Expenditure
1906-07	14,177	37,801
1907-08	16,461	38,126
1908-09	1,80,572	35,741
1923-24	60,840	62,104
1924-25	55,100	70,039
1939-40	1,12,172	1,07,737
1940-41	1,38,347	1,09,504
1941-42	1,57,667	1,42,126
1942-43	1,62,143	1,74,175
1943-44	1,76,028	2,30,528
1944-45	1,71,818	2,77,918
1945-46	99,689	52,812
1946-47	2,52,562	2,34,679
1961-62	11,13,235	9,20,741
1962-63	11,94,711	10,84,243
1963-64	12,87,792	11,44,600
1964-65	11,98,500	11,98,500
1965-66	10,90,800	10,08,500
1966-67	11,17,001	12,37,037

1. Source : Report on the Administration of the Bikaner State for the years 1939-40 to 1946-47 and office of the Executive Officer, Municipal Board, Bikaner for the years 1961-62 to 1963-64 and Municipal year Book published by the Directorate of the Economics and Statistics, Jaipur for 1964-65 and 1965-66.

APPENDIX II

The tahsil-wise distribution of gram-panchayats in 1951

Bikaner Tahsil

- | | |
|-----------------|----------------------|
| 1. Palāna | 12. Behrāsar |
| 2. Udāsar | 13. Tajrāsar |
| 3. Gusāinsar | 14. Jāmsar |
| 4. Udrāmsar | 15. Runiwas or Runia |
| 5. Barsisar | 16. Pemāsar |
| 6. Husangsar | 17. Pūgal |
| 7. Sūrdhana | 18. Rāmsar |
| 8. Gādhwāla | 19. Kilohu |
| 9. Naurangdesar | 20. Khārā |
| 10. Nāi | 21. Jaimalsar |
| 11. Kāmāsar | |

Naukha Tahsil

- | | |
|------------------------------|-----------------|
| 1. Sūrpura | 9. Sādasar |
| 2. Kākroa | 10. Gajrubdesar |
| 3. Bādno | 11. Pānchūn |
| 4. Lāllamdesar Bara & Chlota | 12. Kuchor |
| 5. Rāsīsar | 13. Kesardesar |
| 6. Jāsārāsar | 14. Kokām |
| 7. Hematsar | 15. Ankhisar |
| 8. Mundsar | |

Lunkaransar Tahsil

- | | |
|--------------|---------------|
| 1. Saikhsar | 6. Kakri |
| 2. Khokhrāna | 7. Sehajrāsar |
| 3. Kujati | 8. Mahājan |
| 4. Kālu | 9. Jaitpur |
| 5. Kapūrisar | 10. Kumāna |

Kolāyat Tahsil

- | | |
|------------|-----------|
| 1. Kolāyat | 3. Jhajhu |
| 2. Gajner | |

APPENDIX III

List of Panchayat Samitis, Nyaya Panchayats and Panchayats

Panchayat Samiti 1	Nyaya Panchayat 2	Panchayats 3
Bikaner	1. Napāsar	1. Napāsar 2. Rāmsar 3. Tejrasar 4. Mundsar 5. Sital 6. Gādhwala
	2. Jāmsar	7. Jāmsar 8. Karnīsar 9. Mālāsar 10. Lālasar
	3. Udāsar	11. Udāsar 12. Sujandesar 13. Rirmalsar 14. Sheo Bāri 15. Nāl Bari 16. Karmīsar
	4. Palāna	17. Palāna 18. Ambasar 19. Udrāmsar 20. Lalamdesar 21. Kesradesar 22. Narsingsar 23. Pugal 24. Dāntor 25. Sattāsar
	5. Pugal	
	6. Jaimalsar	26. Jaimalsar 27. Amarpura 28. Kānāsar
	7. Bamblu	29. Bamblu 30. Naurangdesar 31. Sirera 32. Rooniyan Barwas 33. Gusāinsar
Naukha	1. Rora	1. Bīkasar 2. Kūdsu 3. Rora 4. Charkara 5. Rāsisar
	2. Kāku	6. Kāku 7. Sarunda 8. Bhadla 9. Dhawa 10. Bhāmatsar
	3. Hematsar	11. Hematsar 12. Kākro 13. Rāsar 14. Ankisar 15. Mokām 16. Jesalsar
	4. Sindgru	17. Gajrubdesar 18. Morkhāna 19. Sūrpura 20. Salonda 21. Sindgru
	5. Sādasar	22. Sādasar 23. Bādno 24. Kuchora 25. Gājsukhdesar
	6. Pānchūn	26. Pānchūn 27. Nāthusar 28. Deshnoke 29. Dheegsari 30. Kuchor Athuni

1	2	3
	7. Desilsar	31. Desilsar 32. Jānglu 33. Jesindesar 34. Munjāsar 35. Udāsar
	8. Jsrāsar	36. Jsrāsar 37. Udsar 38. Nokhagaon 39. Thaoria 40. Somalsar
Lūnkaransar	1. Kānolai	1. Kumāna 2. Kānolai 3. Jāgar 4. Māhdiali 5. Khārbāra
	2. Kālu	6. Kālu 7. Kujati 8. Gārabdesar 9. Ravānsar
	3. Shaikhsar	10. Shaikhsar 11. Suin 12. Kapūrisar 13. Rājāsar
	4. Rājāsar	14. Sodhwāli 15. Motolāi 16. Khokhrāna 17. Rājāsar
	5. Lūnkaransar	18. Kākarwāla 19. Dhuldesar 20. Dhīrera 21. Hānsarān 22. Lūnkaransar
	6. Mahājan	23. Jetsar 24. Kharisar 25. Mahājan 26. Rojha
Kolāyat	1. Kolāyat	1. Kolāyat 2. Gājner 3. Jhajhu 4. Bholāsār 5. Akāsar
	2. Mankāsar	6. Godu 7. Mankāsar 8. Bajju 9. Barsalpur
	3. Gura	10. Kharichārnān 11. Sūrjāro 12. Bithnokh 13. Gura
	4. Girājsar	14. Bīkampur 15. Gogriyāwāla 16. Sevara 17. Girājsar
	5. Hadda	18. Khetolai 19. Khākhūsar 20. Chhaneri 21. Khndasar 22. Dāsori 23. Hadda

CHAPTER XV

EDUCATION AND CULTURE

HISTORICAL BACKGROUND

The area comprised in the district has been rugged and desolate. It has been the scene of fierce and frequent battles fought for its occupation in the course of which the territory changed hands frequently. In these circumstances, fitness for survival was the most cardinal virtue. Emphasis had to be placed on the ability to wield the sword rather than the pen. In fact, the elite, the ruling class and the landed aristocracy, gave secondary importance to reading and writing leaving this placid avocation to be pursued by their paid employees. Proficiency in letters was believed to be the principal concern of the Brahmans and Mahajans. Others derided it till after the close of the eighteenth century and took little interest in formal education.

The small groups to which formal education was imparted received it from individuals, and there were very few *Pathshalas* or *Makhtabs* which could be called organised educational institutions. When the necessity of formal education began to be felt, it still remained the privilege of a small minority, consisting of the Rulers, the landed aristocracy and the wealthy merchants. The education which generally consisted in the ability to read and write was imparted through the traditional *Pathshala* and *Makhtabs*.

In 1870 there were only 12 *Pathshalas* or schools which taught their pupils the art of reading and writing and keeping of accounts, and their condition was far from being enviable. According to Powlett, "previously the places of education were the temples, Jain monasteries and the *pathshalas*, at which the last sons of the many wealthy merchants were taught to read, write and cipher. Their whole school equipment is a hard bit of wood and their studies are usually conducted on a shady side of the street". However, a Hindi and Urdu School was started at Bikaner in 1872. In 1883, the Darbar Primary School at Bikaner was opened. New educational institutions continued to be established slowly but steadily. The number of State schools in 1887 was 29. It increased to 43 in 1911-12 and to 60 in 1918. In the year 1911 Harvest Sherring, a former Principal of Mayo College, Ajmer, was appointed as Director of Education to survey the condition of

educational progress and suggest improvements. His efforts cleared the way for the introduction of a new educational scheme in 1918, the salient features of which were as follows :

1. Popularising College Education by the offer of liberal scholarships.
2. Raising the status of the Walter Noble's School to the matriculation standard.
3. Improving and enlarging the staff of the Dungar Memorial College and the Anglo-Vernacular Schools in the district.
4. Much wider diffusion of Primary Education by opening new State schools and giving liberal grants-in-aid to private institutions.
5. Extending the benefits of female education by opening new schools and affording assistance to private institutions in the shape of grants-in-aid, advice and supervision by the State Inspecting Staff.
6. Providing greater facilities for the study of Sanskrit by opening a *Pathshala* in the capital manned by really capable priestly class in *Jyotish* (astrology), *Vyakaran* (grammar) and *Karam-kand* (rituals).
7. Providing facilities to local men to undergo training in arts and professions both within and outside the State.

As a result of the implementation of these educational schemes the number of institutions increased to 74 in 1920-21 and continued to increase thereafter (the details are given on the following page).

Another milestone in the history of educational progress was the enactment of the Compulsory Primary Education Act. in 1928. Its provisions were of a permissive nature, so that it was open to the Municipalities to apply for sanction to enforce it to any particular area and the Government assumed the responsibility for two-thirds of the cost on compulsory education and one-third was to be incurred by the Municipal bodies. Accordingly, Bikaner Municipality started compulsory Primary Schools in Bikaner. Their number gradually increased to 16 in 1948. The benefits of this scheme were not realised anywhere else in the district.

Separate figures for the area comprised in the district are not available but the progress of education in the erstwhile princely State of Bikaner as a whole can be gauged from the following tables ;

Rajasthan District Gazetteers—Bikaner

Year	No. of State Schools	No. of teachers	No. of pupils	Expenditure (Rs.)
1897-98	29	49	1,606	18,125
1911-12	43	96	3,056	62,040
1918-19	60	169	3,512	84,299
1920-21	74	205	5,238	14,162
1925-26	71	211	4,795	1,38,735
1930-31	108	328	7,701	2,41,537
1935-36	122	386	9,361	2,92,357

In 1935-36 there were 50 private schools of different kinds receiving grants-in-aid, 39 private recognised schools and 170 private unrecognised schools in addition to the State Schools. The total enrolment was 6,752 and 9,539 in the recognised and unrecognised schools respectively. After 1935-36 the quinquennial progress of State, public and private funds educational institutions and the students studying therein, is shown below :

	1940-41		1945-46	
	Schools	Scholars	Schools	Scholars
State Schools	131	12,313	201	18,187
Public Funds Schools	137	7,186		
Private Schools	191	7,975	432	18,955
Total	459	27,474	633	37,142
Expenditure	Rs. 4,06,677		Rs. 4,22,252	

GENERAL EDUCATION

Administrative Set-up

In 1927 the Directorate of Education was set-up. The department continued to grow from time to time. On the eve of merger, the administrative set-up of the Education Department of the former State of Bikaner was under the control of a Director of Education who was assisted by an Assistant Director, an Inspector of Schools and an Inspectress of Girls Schools. The Inspector of Schools was assisted by

two Assistant Inspectors of Schools. The supervision of various schools was divided into Central, Northern, Western, Eastern and Southern Circles, and each circle was in the charge of a Deputy Inspector of Schools. The Inspectress of Schools was assisted by an Assistant Inspectress of Girls Schools.

With the merger of the erstwhile Bikaner State, the Division including the districts of Bikaner, Gangānagar and Churu, was placed under the charge of a special Education Officer, afterwards redesignated as Inspector of Schools. He was assisted by one Deputy Inspectress of Girls' Schools and three Deputy Inspectors. The Inspectress and one of the Deputy Inspectors were posted at Bikaner. Later on this Inspector was made exclusively responsible for the district.

The Inspector of Schools was assisted by a Deputy Inspector who was in-charge of the middle schools and two sub-Deputy Inspectors for Primary Schools. On the formation of the Panchayat Samitis, the control of the primary schools except those located in Bikaner city, was transferred to them. The posts of sub-Deputy Inspectors were abolished and instead each 'Samiti' was given an Education Extension Officer to supervise the working of these schools. The Inspector and the Deputy Inspector are available to the 'Samitis' for advice. They also control the high and middle schools and only such primary schools which have not been handed over to the local bodies. The office of the Deputy Inspectress was raised to that of Inspectress of Schools in 1964. The Inspectress of Girls' Schools with her head quarters at Bikaner, holds the charge of the girls' schools of the districts of Bikaner, Gangānagar and Churu.

New Trends

Since the launching of the First Five Year Plan in 1951, new tendencies in the field of education, namely, (i) transfer of the control of primary education to the Panchayat Samitis, (ii) Upgrading of a number of schools and (iii) craft orientation of primary schools, have steadily emerged. Besides, measures for providing educational facilities for all children between 6 and 14 years of age and the introduction of the three years' higher secondary education pattern and the Three Years' Degree Course in all Colleges have been adopted.

The Primary Education

The total strength of the primary schools in the district was 104

on the eve of the merger of the former State of Bikaner. It was raised to 108 in 1950-51. Since then the number is rapidly increasing due to adoption of the policy that the State is responsible for the elementary education, and that it should be compulsory for all school-going children. The number of institutions, scholars and teachers, rose to 148,7,779 and 292 respectively in 1955-56, and to 340,22,844 and 670 respectively in 1960-61, when all the primary schools (boys and girls) in the rural area were transferred to the Panchayat Samitis. The strength of the primary schools in 1965-66 was 435, that of scholars 35,932 and teachers 1,069. In the year 1965-66, there were 56 State Primary Schools, 16 compulsory primary schools managed by the Municipal Council, Bikaner, 16 aided primary schools and 17 Private Primary Schools recognised by the State for boys, under the control of the Inspector of Schools, and 21 girls primary schools were under the administrative control of the Inspectress of Schools. The rest, totalling 347 were under the Panchayat Samitis.

Middle Schools

The total number of middle schools for boys and girls in the district was 20 in 1951. At the end of the First Five Year Plan in 1955-56, the number of schools was 27; that of scholars 2,740 and teachers 128. Their respective strength increased to 48, 11,850 and 422 in the year 1960-61 at the end of the Second Five Year Plan, and 56, 14,222 and 600 in the year 1965-66 at the close of Third Five Year Plan. Of the middle schools, boys schools are controlled by the Inspector of Schools, and girls Middle Schools are under the administrative control of the Inspectress of Schools. The girls' schools are mostly located in the city and towns; there being 11 middle schools in Bikaner, 2 in Gangashahr and one each in the towns of Naukha, Bhinasar and Deshnoke. The only middle school in the rural area is located at Lunkaransar. Facilities for girls education are being utilised to a very limited extent because the villagers are not yet keen about the education of their girls and it will take some time before they realise the value and utility of female education.

The only town in the district where there is still no girls middle school is Kolāyat. Majority of Middle Schools for boys are located at Bikaner and Ganagashahar besides one each at Udrāmsar, Udāsar, Devakund Sagar, Kesardesar, Palāna, Barisingar, Sinthal, Shreraron, Jāmsar, Pugal, Pānchun Jānglu, Verasar, Jarsinghdesar, Magra,

Bandhara, Desilsar, Hematsar, Rāsisar, Jasrasar, Kankara Akhāsar, Gajner, Jhajhu, Diyatara, Bajju, Makajar, Jaitasar, Kapūrirar and Shekhasar.

High and Higher Secondary Schools

On the eve of merger of the erstwhile State of Bikaner there were 8 High Schools in the district. In the year 1950-51 also there were 8 High Schools for boys and no separate High School for girls. This number increased to 11 (all boys) in 1955-56, and that of students and teachers to 4,948, and 192 respectively. Their respective strength further increased to 17 (16 boys, 1 girl), 8,532 and 383 in 1960-61 and 22, 10,494 and 473 in 1965-66.

Colleges

On the eve of merger of the erstwhile State of Bikaner, there were three colleges for general education and one for training the teachers up to Teachers Training Certificate standard, in this district. Their number increased to nine in 1960-61 and 12 in 1965-66. Among them five are for general education, one each for Medical, Veterinary and Animal Husbandry Sciences, Science of Indian Medicine, training of teachers and Sanskrit education. The details about enrolment and strength of teachers and scholars are as follows :

	1965-66 (Scholars)			1965-66 (Teachers)		
	Boys	Girls	Total	Males	Females	Total
Colleges for ¹ General Education	1335	359	1794	84	28	112
Professional ² Education	1944	474	2418	246	27	273
Special Education ³	257	25	282	18	—	18

1. Colleges for general education include institutions in the faculties of Arts and Science.
2. Professional Education includes training in various professional education viz., Medical, Engineering, Technology, Veterinary, Ayurved, Agriculture, Commerce, Law, Teachers Training and Physical Education.
3. Special education covers those institutions which impart instructions in Music, Dancing, Fine Arts, Oriental Studies and Social Education.

There are five colleges for General Education affiliated to the University of Rājasthān. The details of which are as follows :

Names of Colleges	Date of establishment	Educational facilities provided	Number in 1966	
			Students	Teachers
Dungar College, Bikaner	1882 as Primary School and was raised to the Intermediate College in 1928, Degree in 1935 and Post-Graduate in 1942.	M.A., M.Sc., M.Com. B.A., B.Sc., B.Com., Pre-university, and LL.B.	928	64
Maharani Sudershna College for women, Bikaner	1946	B.A., B.Sc., and P.U.C.	315	26
Jain Degree College, Bikaner	1907 as Primary School and was raised to a High School in 1948, to the Intermediate standard in 1954 and to a Degree College in 1957.	M.Com., B.Com., and P.U.C. Commerce only	251	8
B.J.S.R. College, Bikaner	1934 as a Middle School and was raised to a High School in 1945, to an Intermediate College in 1945 and to a Degree College in 1957.	B.A., B.Sc., P.U.C. (Arts & Science)	300	13
Nehru Sarada Peeth, Bikaner	1965 as Degree College	B.A. B.Com.	146	13

Teachers, Training College, Bikaner

A Teachers' Training School was started in the year 1941. It was later raised to the Teachers' Training Certificate Standard and was affiliated to the Rājputāna Board. It was again upgraded and B.Ed. classes were opened in the year 1956. Education is free for all women trainees and they are given a stipend of Rs. 40 per mensem for the duration of the B.Ed. Course. The institution has separate hostel facilities for men and women students with a capacity to accommodate 100 men and 40 women. The number of teachers during the sessions 1950-51, 1955-56, 1960-61 and 1965-66 was 8, 10, 17 and 18 respectively and that of students for the corresponding years was 48, 75, 126 and 138. The college has a library consisting of 969 books.

Shri Sanatan Dharm Ayurved College

Established in 1945, the Institution prepares the students for the various examinations in indigenous system of Indian Medicine. Even though the education is free, the number of students is not encouraging. The strength of students in 1950-51, 1955-56, 1960-61 and 1965-66 was 32, 34, 23 and 35 respectively, and that of teachers four, eight, ten and ten for the corresponding years. A hostel having capacity to accommodate 50 students is attached to the institution.

Sardar Patel Medical College, Bikaner

Started in July, 1959 by the Government of Rājasthān, it imparts instructions to students for M.B.B.S. courses and offers facilities for the M.Sc. (Med.) Courses in Anatomy and Physiology. The institution also provides facilities for post-graduate studies in medicine and surgery. It maintains five hostels having a capacity of accommodating 578 students. One of them with a capacity for 120 is reserved for girls. The number of students and teachers in the years 1960-61 and 1965-66 was 223 and 712 and 16 and 67 respectively. The College has a library containing 7731 books and 289 journals.

Veterinary College, Bikaner

The College of Veterinary and Animal Husbandry Science, Bikaner is located in Vijay Bhawan. It was established in 1954. The College is affiliated to the University of Udaipur and prepares

students for B.V. Sc. and A.H., M.V.Sc. and Ph.D. degrees. The number of students in the year 1955-66, 1960-61 and 1965-66 was 131, 249 and 238 respectively and that of teachers, 38 in 1960-61 and 55 in 1965-66.

TECHNICAL SCHOOLS

Bikaner Polytechnic, Bikaner

It was established in July 1962 by the Government of Rājasthān and is controlled by the Director of Technical Education. It is temporarily located in the old Dungar College building and is likely to be shifted to the newly constructed building on Shiv Bari Road by 1967-68 session. The institution prepares students for Diploma Courses in Civil, Mechanical and Electrical Engineering. The total number of students and teachers during the session 1965-66 was 373 and 42 respectively.

SPECIAL INSTITUTIONS

Oriental Institutions

SHRI SARDUL SANSKRIT VIDYAPEETH, BIKANER—This institution has started working since July, 1953, under the management of Shri Sardul Brahmacharyashram Trust, Bikaner. At present it prepares students for Praveshika, Upadhyaya and Shastri examinations, and Acharya (Post-graduate) examination in Sahitya and Vyakarana (Literature and Grammar), conducted by the Board of Secondary Education, Rājasthān, Ajmer and the Registrar Departmental Examinations, Rājasthān, Bikaner. The strength of the students and teachers in 1965-66 was 282 and 18 respectively. The Vidyapeeth has a library of 8390 books.

GANGA SANSKRIT PATHSHALA, BIKANER—It was opened in 1918 to provide instruction in Sanskrit *Jyotish*, *Vyakaran* and *Karam-kand* and it prepares students for Madhyama and Prathama examinations conducted by the Board of Secondary Education, Rājasthān, Ajmer. The strength of students and teachers is sixty and six respectively.

School for Blind

Blind School, Bikaner was opened in January, 1963 as a residential institution, where all the expenses are borne by the State. It is financed by the Social Welfare Department and its working is

supervised by the Education Department. During the first year of its life there were 15 students and one teacher. The strength of students and teachers increased to 25 and 4 respectively. In 1965-66, it imparts instructions upto fifth standard. On completion of their studies the students are sent to Government School in Dehra Dun for training in Handicrafts. The Handicrafts Department of the school trains them in canning of chairs. The Music Department prepares them for examination conducted by Brahat Gujarat Sangit Samiti, Ahmedābād.

LITERACY AND EDUCATIONAL STANDARD

According to the 1951 Census, 11.20 per cent of the population was literate, the percentage being 17.39 among males and 4.55 among females. In the urban areas it was 20.6 per cent (males 31.6 per cent and females 9 per cent) and in the rural areas 3.1 per cent (males 5.4 per cent and females 0.6 per cent).

According to the 1961 Census 23.19 per cent of the total population is literate; the percentage for males and females being 23.94 and 11.46 respectively. This percentage is far above the State average of 15.20 and slightly below the All India average of 24. The literacy percentage for Bikaner City was 21.8 (33.3 for males and 9.6 for females) in 1951, and 39.52 in 1961 (52.28 for males and 30.88 for females) but is the lowest as compared to that of any other city in the State of Rājasthān. The percentage in urban and rural areas has increased to 39 (52.1 for males and 24.7 for females) and 11.58 (18.8 for males and 3.49 for females) respectively.

In 1951, the number of those who claimed to have passed the middle school examination was 2420 (males 2026 and females 394) and that of matriculates was 2523 (males 2315 and females 208) those having passed the intermediate numbered 543 (males 495 and females 48) and graduates were 2308 (males 2213 and 95 females). There were 103 post-graduates (90 males and 13 females). Qualified teachers numbered 62 (54 males and eight females). Those having degrees in Engineering, Agriculture, Veterinary and Commerce numbered six, six, three and eight (all males) respectively—in all 23. The number of graduates in law and medicine was 97 (96 males and one female), and 43 (34 males and nine females) respectively. According to the 1961 Census these figures are as follows ;

	Males	Females	Total
1. Literate without educational level	53497	20863	74360
2. Primary or Junior Basic	14100	4435	18535
3. Matriculation	6967	873	7840
4. Technical Diploma	19	2	21
5. Non-Technical Diploma	75	26	101
6. University Degree or Post-Graduate (other than technical)	1827	214	2041
7. Engineering	7	—	7
8. Medicine	63	12	75
9. Agriculture	2	—	2
10. Veterinary	1	—	1
11. Technology	1	—	1
12. Teaching	82	2	84

EDUCATION OF GIRLS

The first girls school, namely, Lady Elgin Girls School, was established in the year 1898 in Bikaner City. The next step towards female education was taken by opening Nobel's Girls School in 1927, a unique institution of its kind in Rājasthān, providing educational facilities for the daughters of the Rajput Chiefs and nobles of the erstwhile Bikaner State under strict purdah. To meet the increasing demand, more and more girls' schools were opened in quick succession; city Kanya Pathshala in 1930, Soorsagar Girls School in 1932, Girls School at Barāhgawar in 1934, Soongiri Girls School in 1936 and Rani Bazar Girls School in 1942. Public interest further helped the opening of Jail Pathashala in and it was followed by Bhairon Ratan Matri Pathashala. Mahila Mandal and Mahila Jagriti Parishad were started in 1947 and 1949 respectively with the aim of awakening interest in and promoting social education among girls and women. Maharani Sudarshan College for women started in 1946, opened the doors for higher education for girls.

The first Girls Primary School outside the city of Bikaner, was opened at Deshnok in 1928. It was followed by the opening of Primary Schools at Napasar in 1930, at Naukha in 1945, at Udasar in 1945, Udramsar in 1946 and at Kalu in 1948. After the formation

of Rājasthān and the adoption of five year plans, the number of such institutions continued to grow slowly but steadily. On the launching of the Democratic Decentralisation Scheme, Panchayat Samitis became custodians of Primary Education in rural areas. This resulted in the transfer of 16 girls primary schools located in the rural area to their control. At the close of the Third Five Year Plan, besides the institutions maintained by the Panchayat Samitis, there were one Degree College, three Higher Secondary Schools, one High School, 16 Middle Schools, 35 Primary Schools and one B.S.T.C. School exclusively for women education.

The growth of women education in the district after the formation of Rājasthān, has kept pace with the growth of education as a whole. The number of educational institutions has increased but the number of students has increased faster. The number of students was 2164 in 1948, it has increased to 11584 in 1960-61, and 16913 in 1965-66. Out of these 359 were studying in College for general education, 474 in professional colleges, 25 in Colleges for Special Education, 1609 in Higher Secondary Schools, 21 in Secondary Schools, 5344 in Middle Schools, 1289 in Junior Basic Schools, 7767 in Primary Schools and 25 in Special institutions.

ADULT EDUCATION

In 1948, 13 Night Literacy Centres were started by the erstwhile State of Bikaner. A literacy campaign was also launched on a State wide scale in which students and teachers took active part during summer vacations. To propagate the cause of Adult Education a separate section of Adult Education in the Education Department under the Deputy Inspector was established. The State was divided into three zones, namely Bikaner, Ganganagar and Rajgarh. Each zone was put under the charge of an Adult Education Organiser and by the end of 1948, 70 adult education centres were established. Thus 23 centres with an average number of 20 students in each, started functioning in the district. The State Adult Education Department further collaborated with other social service organisations like Mahila Jagriti Parishad, Bikaner and Mahila Mandal, Bikaner to encourage adult education among women.

After the formation of Rājasthān two Social Education Organisers were posted, one each at Bikaner and Deshnok in 1950, to implement the suggestions of Shri Salig Ram Pathik of Allahabad.

The key note of his plan was to take one High or Middle School as a Centre for the organiser who, with the help of the adult students of that school would take up adult education in five villages within a radius of five miles of the town. The Adult Education Centres hitherto in existence, were closed as the new scheme started from the second quarter of the month of August, 1950. As this scheme could not come up to expectations it was soon abandoned, and the old Adult Education Centres were revived. Three Centres were restarted in the district at Bikaner, Naukha and Udasar, with the headquarters at Bikaner which was later shifted to Naukha.

With the establishment of Development Blocks under National Extension Service, adult education received a new impetus. Not only many new adult education centres were opened but Recreation Centres, Youth Clubs and reading rooms were also set up. After the democratic decentralisation in 1959, the Panchayat Samitis are entrusted with the task of organising adult literary classes and undertaking allied social education activities. By the end of 1960-61 a total of 245 Adult Literacy Centres were working, 11 Recreation Centres were organised, 67 Youth Clubs were opened and 31 libraries and reading rooms were established under the programme. The achievements during the period 1961-62 to 1965-66 include the establishment of 24 libraries, 35 women associations, 610 adult education centres (where 5391 adults were educated) and 104 youth clubs.

THE BHARAT SCOUTS AND GUIDES DISTRICT ASSOCIATION, BIKANER

The Boy Scouts' movement in the district received momentum in 1921 when the State Association for Scouts and Guides was established. The first District Association was formed at Bikaner in 1938 and the number in the succeeding year 1939-40 was 15 groups with a strength of 1085. The Bikaner District Association was split into three local associations, namely (1) Bikaner Urban Area (2) Bikaner Rural Area and (3) Naukha Mandi for Naukha tahsil. The number of groups in 1948-49 was 30 with a strength of 1740. The strength in 1965-66 was as follows :

	Groups	Strength
Scouts	73	3,516
Guides	23	1,188
Total	96	4,704

NATIONAL CADET CORPS

With a view to instil a sense of discipline and promote qualities of leadership among the students, one troop of 90, Junior Division National Cadet Corps was organised in Bikaner with Sadul High School, Bikaner as Centre, in 1951. The strength of groups during the years to 1960-61 to 1965-66 was as follows :

Year	N. C. C. groups					
	Boys	Girls	Boys	Girls	Boys	Girls
1960-61	350	70	360	135	3960	660
1961-62	393	124	450	135	4200	720
1962-63	600	100	500	150	2120	180
1963-64	600	100	450	150	2300	340
1964-65	1600	182	500	150	2340	180
		Senior Division			Senior Division	
1965-66		2027	57		1331	—

The organisation is directly under the control of 5th Rajasthan N.C.C. Battalion, Bikaner.

CULTURE

Bikaner School of Painting

Nothing at present is known of painting in Bikaner prior to the Muslim conquest of India. A number of crude drawings on poor paper, the oldest of which may belong to the reign of Rao Kalyan Mall correspond to the local style of painting. A local school of painting positively emerged in the times of Rai Singh, which later acquired a high level of perfection of the art of Central Rajputana of Dhundhar (Jaipur), Marwar (Jodhpur) and Mewar (Udaipur). Its beginnings are represented by a set of painting of Kalidasa's Meghduta but its maturity as art is exhibited by Rasikpriya—a set of 54 illustrations influenced by the Gujarati-Rajput style; and a large set of the *Bhagavata Purana* consisting of sixteen pictures of Usha-Charita, and the other set of *Rasikpriya* comprising 21 illustrations and associated with the art of Dhundhar (Amber).

Some illustrations in a *Gita Govinda* manuscript in the Lallgarh collections, *Durga-Saptasari* manuscript in the Anup Singh

Sanskrit Library and an illustrated manuscript of the *Satsai* of Behari Lal court poet of Jai Singh of Jaipur dated 1647 in the collection of Maharaja Mandhata Singh, belong to the early Mughal School of Amber; while a set of *Bara-masa* (twelve months) may be regarded as the last representative of the old Bikaner School, and the miniatures painted by, Hamid Ahmad, son of Gullu resembles 'Basolli' paintings of Himachal. The Mughal style was adopted during the rule of Karan Singh and Anup Singh who attached Mughal Painters to their retinue and the masterpieces of Nathu Ram and Hamid Ruknuddin, Rashid and Ustad Mohammad are its examples.

The position, however, seems to have changed in the comprehensive pictorial work of *Rasikpriya* and *Bhagwat Purana* of which 187 beautiful miniatures and 87 illustrations respectively, have been preserved. The *Rasikpriya* was begun by Rukn-ud-din and was completed by a number of his assistants, Muhammad Ustad, Bag, Lutf, Nuri, Nur Muhammad, Gulu and Hasan, son of Ustad Ahmad. The combined efforts of these Muslim artists created a work of genuine Rajput vintage. Their paintings represent the combination of Mughal and Rajput ideals and spirit of classic Hindi poetry.

The years after Anup Singhi's death saw a cultural revolution. He was succeeded by two minors, Sujan Singh and Zorawar Singh, whose mothers acted as regents. While young, Sujan Singh was under terrific zenana influence and thus painting became a mirror of zenana life. Though innumerable miniatures were produced yet the quality declined. Most of these pictures are small and almost neurasthenic. Even most of the religious pictures represent the mythological imagination of the *Zenana* gods and goddesses like dancing girls in fancy dress, pretty, fashionable, but not comic symbols and visions. In these circumstances, the story of Radha and Krishna came again into favour, specially the story of Krishna's childhood, boyish pranks and dalliance with the milkmaids of Gokul.

During the early years of Gaj Singh, Mughal influence became dominant. The paintings of Ustad Shah Muhammad Abu Rezo, Ustad Abu Quasim, Hasan Mahamud, Ustad Abu Mahmad and Ustad Muhammad, are the best examples of his times. The Mughal style, however, began to lose its influence after Gaj Singh's visit to Jodhpur, Jaipur and Nāthdwāra, in 1765. After 1780, the Rajput style exhibiting the mystic romanticism of Radha-Krishna, attained its

maturity during the reign of Surat Singh at the turn of the 19th Century. The best examples of which are the lateral doors of the Anup Mahal. The quality continued to fall since the first decade of the 19th Century, and the attempts neither of Maharaja Sardar Singh to decorate Gaj Mandir nor of Dungar Singh to get Sardar Niwas decorated on the lines of Chandar and Anup Mahals, could resist the continuous decline of the art.

Literature

During the reigns of Maharaja Rai Singh and Maharaja Karan Singh, the State extended their patronage to learned persons and institutions. Rai Singh himself composed *Rai Singh Mahotsab* and scribed a commentary on *Sripati's Jyotish Ratanmala* and the Jain ascetic Jankimala completed his commentary on *Shabdaveda* during his reign. Under the patronage of Maharaja Karan Singh, Ganga Nand Maithli composed *Kavya-kakini* and Karna Bhusan Bhatt Hosilak composed *Karan-vatansa*, and Mudgal completed *Karanastosh* and other minor compositions. The court of Maharaj Anup Singh, himself a litterateur and the author of *Anup Viveka*, *Kama Prabodh*, *Shradha-Prayoga-Chintamani* and the commentary on Gita Govinda, known as *Anupodaya*, not only attracted but sheltered a large number of scholars and artists. Under his liberal patronage art and literature flourished on an unprecedented scale in the history of Bikaner and a large number of Sanskrit works were either composed or completed, notably, *Jyoti-pattisar* by Vaidhyānath Suri, *Anup Vilas* and *Anup Vyavahar Sagar* by Mani Ram Dixit, *Ayut-laksha-home-koti Prayog* by Bhadra Ram, *Tirathatankar* by Anant Bhatta, *Panditya-darpan* by Swetamber Udai Chandra, and Bhava Bhatta, Sangitrai, the son of Sangita-charya Janardhan Bhatt, the famous musician of the court of Shajahan composed his works on music, namely, *Sangit Anup an-kush*, *Anup Sangit Vilas*, *Anup Sangit Ratnakar*, *Nasthodhista-Prabodhak-Dhropat Tika*. A number of works on various subjects, whose authorship is attributed to the Maharaja Anup Singh, were also compiled, especially *Sanatan-Kalpa-Lata*, *Chikitsa-Maltila* and *Sangrah-Ratanmala* on medicine, *Anup Ratnakar* and *Anup Mahodadhi* on astronomy, *Sangit-vartaman* and *Sangitanurag* on music; *Laxminarain-Stuti* and *Laxminarain pujasar* on the Vaishnava worship and *Sambā Sadashiva Stuti* on the worship of Shiva and *Kautuka Sarodwar* on humour.

The other notable achievements during the reign of Anup Singh include *Mahashanti* by Ram Bhatta and *Shanti-Sudhakar* by Vidya Nath Suri, a commentary on Dharm Shashtra, *Kerali Suryya-runasya* by Pantuji Bhatt, *Amrit Manjari* by Hoshing Bhatt and *Shubh-Manjari* by Ambika Bhatt on medicine, *Sangit Vinod* of Bhava Bhatt and *Sangit Anupoddeshya* of Raghunath Goswami, *Kama Prabodh* of Janardhan, *Dash-Kumar Prabandh* of Shiv Ram and *Madhyvya-Karika* of Shanti Bhatt on polity and ethics; and a number of treatises on the art of worship include the works of Nil-Kanth Ram [Bhatt, Vidya Nath, Shivanadan, Damodar Trilok and Saraswati Bhattacharya. The Maharaja equally patronised Rajasthani and got *Shuka-Sarika* and *Vaital-Pachisi* and other works composed. Alakhiya Sampraday¹ also contributed significantly to the literature.

The dialect of Rajasthani spoken in Bikaner is an off shoot of Bagar Apbhransha. A movement for propagation of Hindi was launched by the intelligensia under the leadership of Pandit Krishna Shaṅkar Tiwari, during the reign of Maharaja Ganga Singh who recognised Hindi as the official language of the State.

Bikaner played a leading role in the creation and development of the bardic poetry in Rajasthan which includes the floating mass of bardic literature tying interned either in the houses of Charans, in temples and *maths*, or on the lips of roaming minstrels. The works of Bitha Suja, a Charan who composed *Chhanda Rao Jait Singhro* and of Prithvi Raj Rathor, the brother of Raja Rai Singh of Bikaner, and one of the leading poets at the courts of Akbar the Great, inspired Rana Pratap for heroic resistance against the Mughal Emperor. In the domain of Dingla, *Krishna Rukminiri Ri Veli* famous epic romance and '*Dyal dass khyat*', the bed rock of all subsequent histories of Bikaner, are the notable achievements. Among the modern writers the names of Laxmikumari Chundawat, Agar Chand Nahta, Murlidhar Vyas and Mal Singh, deserve mention.

Among the modern poets in Rajasthani are Bharat Vyas, Kanwar Chander Singh, Bithu Gopi Dan, Murlidhar Manauj and Gajanand. Chander Dev, Meghraj Mukul, S.K.L. Goswami and V.S. Pathik are the progressive Hindi poets whose compositions

1. For details about Alakhiya Sampraday and its founder Lalgir see *Alakhiya Sampraday*, Chandradas Charan, Bhartiya Vidya Mandir Shodh Pratisthan, Bikaner, 1964.

represent originality of expression and poetic fervour of renaissance India. The Urdu poetry of Mohammed Adllah Bedi is characterised by simplicity of diction and delicacy of thought.

LIBRARIES AND OTHER INSTITUTIONS

Anup Sanskrit Library

Maharaja Anup Singh (1669-1698) who was himself a litterateur and a great lover of Sanskrit established a library in Bikaner fort for the preservation of manuscripts and other rare and valuable books collected by him during his campaigns in the Deccan. The first and Second fasciculus of the catalogue of Sanskrit manuscripts was brought out in 1945 and 1946, and the other manuscripts were also catalogued in 1946-47. It is admittedly one of the finest and best known collections in India and consists of about ten thousand manuscripts in Sanskrit, Hindi and Rajasthani and is now the personal property of the Maharaja of Bikaner.

The King Emperor George V Silver Jubilee Library

The King Emperor George V Silver Jubilee Library was founded on 1st March, 1937 and was declared open to the public in 1938. It was shifted to its present building in September, 1954. At present it is one of the five governmental regional libraries in Rajasthan, and has a branch library, located in Daga Building, K.E.M. Road, Bikaner. It contains 38403 books on various subjects and subscribes 136 periodicals and newspapers. The number of members is 994 who borrowed 25286 books from the library. Its moving section maintained 109 collection centres and have 2064 members and the section for children claims 294 members on its roll.

Shri Gun Prakash Sujjanalaya, Bikaner

Shri Gun Prakash Sujjanalaya was established in 1901. It is inside the Kote Gate in the midst of the most thickly populated area of the city and as such it is easily accessible to a large number of persons. The average number of daily visitors and readers is approximately 1400 and 54. It contains 11000 books and subscribes 60 newspapers and periodicals.

Shri Abhaya Jain Granthalaya, Bikaner

Shri Abhaya Jain Granthalaya was founded by Seth Shanker Dan Nahata to commemorate the memory of his deceased

son, Abhaya Raja in *Sambat* 1977 (1920 A.D.) It contains more than 5000 books and manuscripts on various subjects, written mostly between the thirteenth and nineteenth century, *Panchangs* for the last 300 years and *firman*s of a number of Rulers for the last 400 years. In *Samvat* 1984 (1927 A. D.) Shri Abhyaya Jain Granthmala (series) was started and 25 books have so far been published under this series.

Shri Ram Krishna Kutir, Bikaner

Shri Ram Krishna Kutir was founded in October, 1949 by a group of devotees under the inspiration of Swami Japananda to propagate the message of Swami Ramkrishna Paramhansa and Swami Vivekananda. The library contains 4545 books and subscribes 40 magazines and newspapers. It has so far published 10 books.

Gandhi Shanti Pratishthan, Bikaner

Established in 1956 as Gandhi Adhyayan Kendra, it is known as Gandhi Shanti Pratishthan since January 1966. It is run by Gandhi Shanti Pratishthan, New Delhi and is recognised by the Education Department of Rājasthān Government. It has 2500 books on different subjects especially on Gandhian philosophy. The institute subscribes nearly 60 journals and newspapers. The reading room is attended by approximately 125 readers everyday. The institute aims at organising various literary activities with the help of educational institutions and social organisations especially to propagate ideas of Gandhiji. The institute has successfully organised several programmes every year.

Sadul Rajasthani Research Institute, Bikaner

It was founded on November 12, 1944 by Maharaja Sadul Singh of Bikaner with K.M. Pannikar, the then Prime Minister as its first Rector, to organise and carry out research work in modern Indian and Oriental literature, History, Oriental studies and Indology. The Institute has so far published 25 books and nine volumes of *Rajasthan Bharti*, its research magazine. The institute has established two chairs namely, 'Maharaja Kumbha Asan' and Maharaja Prithivi Raj Asan' an every year invites some eminent scholar to read an essay on Art and Literature. The institute also celebrates Maharaja Prithivi Raj Jayanti and L. P. Tessitory day. It has compiled an exhaustive *Shabd Kosh* and *Muhavara Kosh* of Rajasthani language. It possesses about 2000 books.

Rājasthān Gyanpith, Bikaner

Established in 1923 as 'Rājasthān Sahitya Pith', it was reorganised as 'Rājasthān Gyanpith' in 1967. Principal aims of the *pith* include collections, study and publication of old Rājasthāni literature and folk literature besides research studies. Important divisions of the *pith* are collection, publication and research. Several Ph. D. scholars also have utilised the material available at the *pith* and availed themselves of the guidance by senior staff members.

Hindi Vishwa Bharti Shodh Pratishthan, Bikaner

Run by Hindi Vishwa Bharti, the *pratishthan* is recognised by the Education Department of the State and associated with Rājasthān Sahitya Academy. Activities of the institute can be placed in these two categories: Sanskrit and Rājasthāni. In the former studies relate to Vedic and Pauranik literature, philosophy and theology are carried out while in the latter relate to folk-literature, unknown saints *Vani* (words) and Rajasthani poets.

Shri Sangeet Bharti, Bikaner

The institute was established in 1956 and recognised by the Education Department of the State in the following year. The institute is run in a rented building. In 1964 the institute was recognised for B. A. Examinations of music. The institution receives 60 per cent aid from the government. The staff consists of full-time and part-time music teachers. There are 48 students on the rolls of the institute.

Shri Bhartiya Vidya Mandir, Bikaner

Shri Bhartiya Vidya Mandir was founded on August 19, 1948 to accelerate educational activities and encourage research work through the medium of Hindi, Rajasthani and other languages. It is a public institution managed by an executive elected by its general body. It imparts instruction for the various examinations of the Hindi Sahitya Sammelan Prayag and Rashtrabhasha Prachar Samiti Wardha. The Mandir also runs night classes (since 1948) for the benefit of those who have to earn their livelihood during the day. As many as 7415 students have benefited by these night classes during the last 18 years. It also manages the Pancha Mukhi Siksha Sadan (since 1949) which imparts education to children through modern psychological methods of education. There are 243 children (3 to 14 years) in the school. The children's park outside Nathusar gate was started in 1960. A research centre in 1957

was established under its auspices which is recognised by Rājasthān Sahitya Academy, Udaipur. The centre has 418 manuscripts and 647 rare books and subscribes 16 research magazines. It has so far published six books on Rājasthāni Sahitya. Other two volumes are in press and five are ready for press.

Mahila Mandal, Bikaner

The institution was established on August 15, 1947 by Shrimati Gulab Kumari Shekhawat, Smt. Saraswati Devi Mohata and Smt. Ratan Devi Dhamani with the aim of promoting education among women, and to make them self-supporting by training them in useful arts and crafts. Started with a humble beginning, the institution is now humming with various activities, which primarily include the running of classes upto matriculation as well as Prathama and Madhyama at various centres in different localities in Bikaner city, namely, Barh Guwar, Sunaro-ki-Guwar, Jassusarwas, Hanuman Hath and Damani Guwar. The Mandal maintains a child welfare centre, runs a Bal Bari and a production centre where training in tailoring, embroidery and other handicrafts is provided. The institute is also running a ladies co-operative society namely, Bikaner Mahila Girls Udhyog, for selling articles of domestic consumption. The Mandal has been implementing a programme of adult education for women, sponsored by the Central Social Welfare Board, and has adopted a scheme of its own to complete the courses from the beginning to the High School classes within six years.

The managing committee of the Mandal consists of 15 members elected by the members. It is significant that only women can become members of the managing committee, as active membership is open to them only, though patrons may be of either sex.

Ganga Golden Jubilee Museum, Bikaner

This museum was opened near the Lallgarh Palace on the 5th of November, 1937 on the eve of Golden Jubilee Celebration of Maharaja Ganga Singh and was shifted to Ganga Niwas, inside the fort, after a period of 10 years and 4 months. Maharaja Karni Singh created a trust for the construction of the present building (civil lines) which was declared open to public on the 4th of September, 1954. Principal sections of the museum are : 1. Maharaja Ganga Singh Memorial Section, 2. Local Arts and Crafts Section, 3. Historical Section,

4. Archaeological Section, 5. Armoury, 6. Miniature Paintings and Folk-Arts, and 7. Lithoprints of the British Interpretation of War of Independence, 1857.

FURGAL (SILK ROBE)-1596 A.D. OF THE EMPEROR JAHANGIR—It is one of the proudest acquisitions of the Museum. The *Furgal* was presented by the Crown Prince Salim (afterwards Emperor Jahangir) to Raja Rai Singh of Bikaner, who was one of the highest Hindu Generals of the Mughal army. There are repeated inter-woven figures of a body and a girl in Persian style throughout the piece surrounded with floral designs, in red, green and yellow patterns. It is said that the piece of cloth was prepared in the special *Karkhanas* of the Shah of Persia.

HISTORICAL MUGHAL FARMANS—The history of Bikaner contains a colourful record of war adventure. More than half a dozen of Bikaner Rulers lost their lives while participating in the Imperial campaigns of Mughals. Various *Farmans* bearing original Imperial seals issued by the Emperors Jahangir, Shahjahan, Aurangzeb & Shah Alam, are preserved in the museum, and which have a bearing on Indian History and are of great use to research scholars.

PAINTINGS—There is a very beautiful collection of Rajasthani paintings of almost all the schools of Rājasthān such as Bikaner, Bundi, Mewār, Jaipur, Jodhpur etc.

TERRACOTTAS—The museum has got one of the finest collections of terracottas in India. These terracottas belong to the early Gupta period and were discovered in the year 1917 by Dr. L. P. Tessitory from the ancient theris of Rangmahal, Badopal, Pirsultan-Ri-Theri between Suratgarh and Hanumāngarh in Bikaner Division. These theris are still older and go slight upto Mohanjodero civilisation. Some of these sites are considered the oldest in the whole of India. It was in this area that the sacred river Saraswati is believed to have flown.

SARASWATI JAIN (11-12th Cent. A. D.)—This unique piece of marble image of four feet eight inches in height, discovered from village Pallu (Bikaner Div.) is a peerless example of Indian sculpture. Its grace and pose, the charming perfection of its anatomy smile of beauty and the liquid softness of its dreamy eyes, defy pen.

NARTAKI-DANCER (10-11th Cent. A. D.)—This beautiful one foot high Jain bronze image was discovered recently from a large sand-dune of Amarsar village in tahsil Sujāngarh (Bikaner Division).

LACQUERED WORK—Bikaner lacquered work with its characteristic style has attended high reputation not only in India but abroad also. This work is entirely done by the artisans called Ustas (Ustads) on wood, metal, glass, stone, leather and estrich egg. Well known lacquered *kuppis* of camel hide are peculiarity of this art in Bikaner and are in great demand in foreign countries. A good number of such *kuppis*, an object of Bikaner art, have also been sent to China and America through the Emporia of the Government of Rājasthān.

WOOD & STONE CARVING—Bikaner stands almost unsurpassed in wood and stone carving work. A carved teak wood table and a wooden casket in the museum are the attractive specimens of modern art with elaborate carvings. The sharp and deep grooves showing the mid-ribs of leaves carved on them, are simply marvellous. On the other hand Bikaner artisans skilfully prepared a model of Gajner Palace (Bikaner), a typical *Ekka* and a Chariot with minutest details. These are masterpiece examples of Bikaner art displayed in the Museum.

Shankar Dev Nahata, Kala Bhavan, Bikaner

Shankar Dev Nahata, Kala Bhavan was established in *Samvat* 1999 (1942 A. D.) and is located in upper portion of the building of Abhaya Jain Granthalaya. It has a good collection of paintings and painted cloth-sheets, statues, coins and terracotta.

Botanical and Zoological gardens

There is a small Zoo, located inside the public park in the city of Bikaner. It has a Lion, a Tiger, Leopards, Sloth-bear, Wild pig, Wolf, Jackals, Porcupine, Spotted deer, black buck, Chinkara, Sambhar, Blue Bull, Hare, Monkeys, Corcodiles and various kinds of birds, such as budgerigars, parrots and parakeets hawks, owls, ducks, flamingoes, the Great Indian Bustard and different varieties of pigeons.

APPENDIX I
List of Secondary & Higher Secondary Schools in Bikaner District.

S. No.	Name of institution	Year of establishment and upgrading				Other particulars
		Primary School	Middle School	High School	Higher Sec. School	
1	2	3	4	5	6	7
1.	Govt. Fort Multipurpose Higher Secondary School, Bikaner.	1920	1941	1944	1961	
2.	Govt. Sadul Multipurpose Higher Secondary School, Bikaner.	-	-	1934	1955	
3.	Seth Bhairondan Chopra Secondary School, Gangashahr.	-	1936	1947	-	The school building was erected by Chopra Seth of Gangashahr in the memory of Late Seth Bhairondan Chopra.
4.	Shri Sadul Pushkarana High School, Bikaner.	-	1947	1949	-	
5.	Shri Jawahar Secondary School, Bhinasar.	1910	1937	1952	-	The school building was donated by Seth Champa Lal Baid and Champa Lal Sethia.
6.	Govt. Secondary School, Napāsar.	1916	1942	1955	-	
7.	Shri Jain Secondary School, Bikaner.	-	-	1947	-	
8.	Govt. City Higher Secondary School, Bikaner.	-	1943	1944	1958	
9.	B.K.V. Secondary School, Bikaner.	1904	1943	1947	-	
10.	Mehta Moolchand Govt. Secondary School, Bikaner.	1909	-	1929	-	

APPENDIX I (Concl.)

1	2	3	4	5	6	7
11.	Govt. Secondary School, Lunkaransar.	1908	1948	1961	-	
12.	Govt. Higher Secondary School, Naukha.	1938	1945	-	1956	
13.	Govt. Higher Secondary School, Kālu.	1934-35	1952-53	-	1956	
14.	Shri Karni Secondary School, Deshnoke.	1912	1931	1949	-	
15.	Maharani Govt. Girls Higher Secondary School, Bikaner.	1927	1946	-	1956	
16.	Lady Elgin Girls Higher Secondary School, Bikaner.	1898	-	-	1958	
17.	Shri Bhairon Ratn Matri Higher Secondary School, Bikaner.	-	-	-	1965	
18.	Shri Fateh Chand Darmani Balika Vidya Mandir, Bikaner.	-	-	1965	-	
19.	Sadul Public School, Bikaner.	1893	-	1944	1955	
20.	Central School (H.S.S.)	1964	-	-	1964	It imparts instruction from fourth to High School standard through the medium of Hindi with English as compulsory subject. Originally it belonged to Defence Department but was taken over by the Ministry of Education, Govt. of India. Building was constructed by the Panchayat.
21.	Govt. Secondary School, Kolāyat.	-	1955	1961	-	
22.	Bhartiya Vidya Mandir, Bikaner.	-	-	1948	1964	

CHAPTER XVI

MEDICAL AND PUBLIC HEALTH SERVICES

EARLY HISTORY

The Ayurvedic system of medicine was being practised from very early times in the district. With the Muslim conquest of India came the Unani system of medicine in the country but Hakims could not penetrate into the rural areas and their practice remained confined mostly to the city. Besides, there were other practising quack surgeons known as *Jarrahs*, very poor and ignorant set of men bandaging fractured limbs. The Jain priests who also practised the art of healing depended mostly upon the *Amrit-Sagar*, an abridgement of *Susruta's* treatise on medicine. The *Pansaris* or druggists prescribed medicines based wholly on their limited experience without any study of the science of medicine. People also put their faith in a number of ascetics, devotees, old women and clever charlatans who claimed to drive out disease by potency of charms.

The Ayurvedic system of medicine provided for effective treatment of a number of diseases and made use of several chemicals, herbs and metallic preparations, such as impure calomel, pure corrosive sublimate arsenious acids, sena cassia fistula, sulphur, mercury, opium, musk, castor, herbs and roots of certain plants. *Jarrahs* sometimes successfully incised wounds, and operations of cataract were performed by travelling oculists who inherited the skill from father to son and carried on the hereditary occupation. Obstetrics and diseases of women were attended to by midwives and *dais*.

The Bikaner State first became acquainted with the European system of medicines in 1848 when Dr. Coleridge was called upon to take medical charge of Sardar Singh son of Maharaja Ratan Singh. Coleridge not only attended on the ailing prince but also began to be consulted, at first by other members of the Rulers' family, and later, by the people in power and pelf, and the general public who could approach him. Coleridge has recorded that to enable him to stock medicines the Maharaja made a grant of 600 to 800 rupees per year, which was later increased to a thousand rupees for purchase

1. *Bikaner State Administration Report*, 1893-98, para 665, p. 144,

of the medicines which were dispensed to those who required them. In the beginning people were naturally skeptical of the efficacy of medicines, entertained various prejudices against their composition, and were reluctant to use them. Gradually, however, their worth began to be appreciated, and many more people began to consult him and take advantage of the medicines prescribed by him, so much so, that during the later part of his stay in Bikaner, Coleridge claims to have rendered medical aid to 600 to 1,000 persons a month.¹ After his departure in January 1869, the working of dispensary managed by him came to a stand still, and thereafter according to a letter dated 2.11.1864 from Dr. Coleridge quoted by Erskine, as no place was earmarked for the dispensary, as such a regular hospital was opened in 1870.

Later, a small hospital was attached to the Central Jail, and these were the only two allopathic hospitals in the entire State till the end of 1885, when allopathic dispensaries were opened at Reni and a few other places of the State. These institutions continued to grow and more dispensaries were established in the area now comprised in the district. Two more dispensaries were opened; one in the city and the other was attached to the palace by the end of 1891. One hospital was set up at Bikaner in 1901 for the exclusive use of the imperial Services camel corps. New dispensing institutions were established by the government of the former State of Bikaner. Their number increased from 14 in 1887-88 to 46 in 1935-36, and 48 in 1947.

The following comparative statement of Medical personnel and patients treated, gives the idea of progress made from 1887-88 to 1947:

	1887-88	1935-36	1947
Number of Doctors	17	59	94
Patients			
Outdoor	78708	397281	546873
Indoor	1734	4710	19571
Operations			
Major	337	1791	2638
Minor	5135	24848	36129
Expenditure	32,398	2,44,196	10,93,748

1. Erskine, K.D., *Rajputana Gazetteer, Vol. IIIA, The Western Rajputana Residency and the Bikaner Agency*, 1909, pp. 376-377.

Administrative Set-up

Till 1910 A.D. the State Medical Department was under the charge of the Civil Surgeon of Bikaner who was attached to the Political Agent at Bikaner. Though his salary was disbursed from State coffers yet he was not under the administrative control of the State authorities. The expenditure on the maintenance of the whole department was incurred by the State but recruitment, postings, transfers etc. of the medical subordinates were entirely controlled by the Chief Medical Officer in Rajputana, with his headquarters at Ajmer. The inevitable result was that the subordinate medical officers considered themselves wholly independent of the State, and displayed a regrettable lack of co-operation with State Officers, with the result that efficiency and discipline suffered alike. This problem as a whole was discussed at a conference at Mount Abu in May, 1910, and it was decided at this conference that the State should have a self-contained Medical Service of its own. Consequently the State Medical Department was organised and placed under the charge of the Principal Medical Officer, Bikaner. It was manned entirely by medical personnel in the exclusive employment of the State.

On the formation of Rajasthan the administration of the then existing Medical Department was placed under the Director of Medical and Health Services, Rajasthan. The district administration was entrusted to the District Medical & Health Officer, who now supervises and controls all hospitals and dispensaries except the Associated Group of Hospitals¹ in Bikaner city, which were placed under the charge of Principal Medical Officer, Bikaner. The District Health Officer, Bikaner is responsible for adopting preventive measures to check diseases and epidemics and in particular supervises the Primary Health Centres in the rural areas.

VITAL STATISTICS

The registration of births and deaths first commenced in Bikaner city in 1866, and in other towns in 1896, but the records remained incomplete due to the indifferent attitude of the citizens in notifying these occurrences to the authorities, as is evident from the percentage rate figures. This is indicated by the fact that the death rate per

1. Prince Bijay Singh Memorial Men's Hospital, Prince Bijay Singh Memorial Women's Hospital, and Ganga Golden Jubilee Tuberculosis Hospital, are included among the Associated Group of Hospitals in Bikaner city.

1000 reported in 1920-21¹ was 18.45 but it was 2.9 only in 1940-41, while the birth rate for the respective years has been reported to be 11.13 and 23.8. These large fluctuations can be ascribed only to incorrect and faulty reporting. Figures of birth and death rates for Bikaner city only are available for the post- 1953 period. They are tabulated as follows² :

Year	Birth rate*	Death rate†
1954	21.7	11.3
1955	22.6	12.1
1956	19.5	12.5
1957	21.1	10.6
1958	21.4	10.4
1959	18.0	10.4
1960	24.0	10.1
1961	19.5	7.6
1962	17.2	7.5
1963	17.0	6.1
1964	15.8	7.7
1965	12.6	9.2
1966	17.1	7.3

It is not possible to draw any conclusions from these figures for the district as a whole because the reporting area is limited and because the conditions in the rural area differ from those in the urban area. Nevertheless, these figures for the last thirteen years, show that the population of the city has increased approximately by 10 per 1000 every year. On the contrary, the percentage variation in population for the period 1951-1961, as revealed by Census figures, is only 29.56 for the district and 28.62 for Bikaner city. Increase in population cannot be correlated with these figures. It can only be deduced that population is increasing rapidly.

1. *Bikaner State Administration Report 1920-21.*

2. *Statistical Abstracts, Rajasthan* for various years.

* Rates per 1000 of mid-year estimated population.

Causes of Death

According to the Reports of Directorate of Medical and Health Services the causes of recorded deaths from 1957 onwards, are as follows¹ :

Cause	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966
1. Small Pox	11	28	-	17	60	1	4	237	170	-
2. Fever (Malaria & other)	136	158	144	138	171	156	142	160	170	133
3. Dysentery & Diarrhoea	79	112	87	62	83	62	54	144	127	124
4. Respiratory Diseases	293	268	332	325	328	269	234	249	262	52
5. Injuries and suicides	7	19	10	27	29	27	26	15	-	278
6. Other causes	723	717	661	756	572	626	606	634	806	701

These figures show that respiratory diseases are the main causes of death, followed by malaria, other fevers, dysentery and diarrhoea.

Longevity

According to the 1961 Census, infants aged upto 4 years, formed 16.7 per cent, those aged between 5 to 14 formed 27.8 per cent, and persons between 15-34 formed 34.3 per cent, those aged 35 to 54 were 16.7 per cent and those aged 55 or above, formed 5.6 per cent of the total population. The high proportion of children under 14 years of age, that is 51.0 per cent of the population, is understandable in the area where births far outnumber deaths, and the population is increasing rapidly. While no conclusive estimate of longevity can be drawn, the sharp drop in the percentage of those above 35, and the small percentage of those aged over 55 indicate that expectation of life is rather low. This is because the people are generally under-nourished. The vast majority being poor, cannot afford a balanced diet. The other reason lies in the arid nature of the tract and

1. *Rajasthan Statistical Abstracts from 1958 to 1967.*

its extremes of temperature. Life is extremely hard in the sandy tract and the people are engaged in a constant struggle for survival. Paradoxically, the rigours of the climate keep them relatively free from common diseases while aging them rapidly. This picture is likely to improve with economic development and higher standard of living.

COMMON DISEASES

The following table shows the number of persons suffering from certain common diseases treated at the various hospitals and dispensaries during the year 1965-66.

Tuberculosis	2897
Syphilis	69
Typhoid	529
Malaria	40
Rheumatic fever	29
Cholera	18
Dysentery	4540
Guinea worm and other	55
Infectious diseases	3106
Respiratory Infections	9742
Influenza	66
Pneumonia	1108
Bronchitis	4317
Diseases of Genital Urinary system	7610
Diseases of Pregnancy and Child Birth	8044
Diseases of skin	17769
Congenital mal formations	91
Diseases of Early infancy	155
Accidents and violence	20093
Poisoning	13
Diseases of Eye	—
Trachoma	991
Inflammatory disease of eye	11676
Cataract	1321
Digestive diseases	10800
Gastroenterities	1307

The most common diseases are those of the respiratory tract, their incidence being very high in the cold winter months. It is primarily due to the extremes of temperature. The winter is very cold and at many places, temperature sometimes, falls below the freezing point. Owing to the dryness of the atmosphere, nature of the soil and lack of vegetation, the change of temperature from day to night is sudden, large and trying. Eye diseases, particularly inflammation and trachoma are prevalent owing to the blowing of winds for most part of the year, carrying particles of sand from the sand-dunes. People generally take raw, unsafe and untreated drinking water which has given rise to numerous complaints of the digestive tract, most common of which being dysentery and diarrhoea.

Vaccination

An effort was made to introduce vaccination in 1860-61 but on the remonstrance of Dr. Coleridge, no work was done. Regular vaccination programme was started in 1881 when one man performed 108 successful vaccinations. At the time of the merger of the erstwhile State of Bikaner, there was only one vaccination centre in Bikaner city. The number has increased to eight, four in Bikaner city under Government control, and one each at Napāsar, Kolāyat, Lunkaransar and Naukha under the control of Panchayat Samitis. These centres have succeeded in checking the incidence of small-pox by a wide-spread vaccination programme. During the year 1965, 14207 primary vaccination and 49124 re-vaccinations in all 63331, were performed.

The anti-T.B. Campaign is conducted through itinerant teams of B.C.G. Vaccination. In the first round in 1954-56 a total of 60047 persons underwent the tuberculin test and 17505 were vaccinated. In the second round during the years 1958-62, 29401 persons were tested and 13227 vaccinated. In the third round in 1963, 39446 persons were tested and 30732 vaccinated. In 1964, 3224 were tested and 3224 vaccinated. In 1965, 23223 were tested, 5982 vaccinated and 7669 were directly vaccinated. In 1966, 72925 were tested and 22754 were vaccinated. This disease is now under control and is not so common.

An anti-malaria unit, with headquarters at Bikaner was established in 1958 under the National Malaria Control Programme. During the year 1965, 139382 houses (72988 in the first round in 397 villages and 66394 in the second round in 371 villages) were sprayed with dichloro diprenye trichloroethane,

Epidemics

Cholera outbreaks in 1891-92, 1896-97 and 1899-1900 claimed more than 4000 victims. Plague, though in existence in India, spared the State of Bikaner until February, 1918 when it claimed 1735 deaths throughout the region. Its second visitation in March, 1922 accounted for 45 deaths. Influenza outbreak in the autumn of 1918 was pandemic and killed over 60000 persons within six weeks it lasted.

Small-pox was the most fatal and used to cause considerable mortality in former days, but the virulence of the disease has been successively reduced by vaccination. Its severe outbreak in Bikaner city in 1924 carried away 429 souls. Since then the district has been free from any epidemic.

HOSPITALS AND DISPENSARIES¹

There are 14 government hospitals² and 11 government dispensaries besides 4 Primary Health Centres in the district. Some of them are described below :

Prince Bijai Singh Memorial Men's Hospital, Bikaner

The General Hospital in Bikaner city was built during the minority of Maharaja Ganga Singh. Within few years it became evident that this hospital was incommensurate and unsuitable. A new operation theatre provided with modern equipments was added to it in 1907. Despite the establishment of separate women's hospital in 1914, the General Hospital remained over-crowded and in due course became outdated. It was decided to construct two separate self-contained hospitals for men and women with accommodation for 137 and 170 beds respectively. In March 1937, these two new hospitals were completed at a cost of Rs. 14,41,612. The General Hospital had its own X-Ray apparatus, Physiotherapy department for Diathermy, Electric massage, Ultra Violet treatment, a Pathological and Bacteriological laboratory and an anti-rabic centre. It was shifted to the new building in 1937 and was renamed Prince Bijay Singh Memorial Men Hospital. Since then the hospital has added new departments and

wards with increased facilities. In 1965, the bed strength of the hospital was 327. It has separate wards for each department: for Paediatrics six beds, Ear, Nose and Throat 24 beds, ophthalmology 47 beds and venereal diseases 10 beds. It has also a Dental Clinic and an Anti-Rabic Centre. The same year a Mental Hospital with the bed strength of 25 was also attached to it.

The staff consists of 38 doctors (including eleven specialists), 91 compounders, 28 nurses, one matron and 13 sisters.

Prince Bijai Singh Memorial Women's Hospital

In 1913-14, a well-equipped Zenana hospital was built at the capital at a cost of Rs. 50,413. It was replaced in March 1937 by the newly constructed Prince Bijay Singh Memorial Women's Hospital. Originally it had accommodation for 107 beds, but in 1965 its total strength was raised to 350 beds. It has separate wards for Pediatrics with 62 beds. Eye and Isolation with 10 beds each, Ear, Nose and Throat with 21 beds and maternity 47 beds. The staff comprises of 12 doctors (including one specialist), 10 compounders, 32 nurses, 3 midwives, one matron and six sisters.

Ganga Golden Jubilee Tuberculosis Hospital, Bikaner

The Ganga Golden Jubilee Tuberculosis Hospital was completed at a cost of Rs. 188,715 and started working on the 1st February 1940. It has 152 beds. The staff consists of 5 doctors (including one specialist), six compounders, two nurses and one matron.

Police Line Hospital, Bikaner

It has a total bed strength of 4. The staff of the hospital consists of one part-time doctor and compounder.

Military Hospital, Bikaner

To meet the requirements of the armed forces of the former State of Bikaner, the Sadul-Military Hospital (now Military Hospital) was opened in February 1914. It was thoroughly reorganised and equipped in 1935-36. On the integration of State Forces with the Indian Army, it was taken over by the Government of India. It has a total strength of 25 beds.

District Jail Hospital, Bikaner

It was established in 1882, to cater exclusively to the needs of

1. Details are given in the Appendix 1.

2. Distinction between a hospital and a dispensary has been made on the basis of in-patient beds; a hospital has beds where as a dispensary has none.

convicts and under trials in the Jail and the Jail staff. It has a total strength of 11 beds, and one doctor and two compounders are in-charge of the Hospital.

Railway Hospital, Bikaner

It is meant exclusively for the railway employees and is maintained by the Northern Railway. It has only two indoor beds and the staff comprises three Doctors, four Compounders and a Dai.

Northern Railway Hospital, Lalgah— It is maintained by the Northern Railway for its employees and its bed strength is six only. The staff consists of two doctors, three compounders and a dai.

Government Hospital, Gajner— This Hospital has only six beds for indoor patients and is served by a doctor, a compounder and a mid-wife.

A. P. Hospital, Pugal— It has two beds only and the staff consists only of a compounder.

Other hospitals in the district are at Deshnok, Palana, Gangashahr and Bikaner (City Dispensary No. 1). Details about these are given at the end of this chapter in appendices I and III. Besides these hospitals, T. B. patients are treated at two places in the district.

Primary Health Centres

Primary Health Centres are opened at places recommended by Panchayat Samitis. They work in collaboration with the Panchayat Samitis but are placed under the administrative control of the District Medical and Health Officer.

The main features of the Primary Health Centres do not consist in the treatment of various diseases but in their prevention, popularisation of family planning and arranging mobile medical services. Each centre is equipped with a medical van for the purpose of providing medical aid and advise, both preventive and curative, in the area of the project. Vaccinators and other sanitary staff of the Panchayat Samitis are placed at the disposal of the Medical Officer of these centres.

There are four Primary Health Centres in the district started at Naukha and Kolayat during the Second Five Year Plan, and at Napasar

and Kalu in 1963 and 1965 respectively. The details of these Primary Health Centres are as follows :

1. **PRIMARY HEALTH CENTRE, NAUKHA—**The Centre has a bed strength of 13. An Anti-Rabic Centre is also attached. The staff consists of a doctor, a compounder, 4 auxiliary health workers and four nurses.

2. **PRIMARY HEALTH CENTRE, KOLAYAT—**It has a bed strength of six. The staff consists of a doctor, three compounders, one lady health visitor, one sanitary inspector and four midwives.

3. **PRIMARY HEALTH CENTRE, NAPASAR—**Its bed strength is six. Anti-Rabic Centre is attached to it. The staff consists of a doctor, a compounder and 4 auxiliary health workers.

4. **PRIMARY HEALTH CENTRE, KALU—**It was started in 1965 with a bed strength of six. It is served by a doctor, a compounder and a nurse.

During the year 1966, maternity and child welfare facilities were available at the following places in the district.

1. M.C.W.C., Bikaner, 2. M.C.W.C., Gangashahr, 3. Mohta Maternity Home, Bikaner and 4. M.B.F.C. Temani Maternity Home, Bikaner.

Besides, family planning centres have been set up at City Dispensaries, Nos. 1 and 2, Bikaner Gangashahr, Kolayat, Napasar, Lunkaransar and Naukha, In addition to these centres, a Mobile Family Planning Surgical Unit is located at Bikaner to popularise the ideal of family planning and the use and distribution of contraceptives.

MEDICAL DEPARTMENT

All the government allopathic hospitals and dispensaries of the district, except the Associated Group of Hospitals, are under the administrative control of the District Medical Officer, Gangashahr. The Associated Group of Hospitals are supervised by the Principal Medical Officer, Bikaner. The following table¹ shows the services rendered by these institutions :

1. Source : *Statistical Abstract, Rajasthan* yearly volumes.

Year	Indoor patients	Outdoor patients
1957	13020	307913
1958	11734	298137
1959	12688	351863
1960	13974	385253
1961	14040	393278
1962	14412	409515
1963	16520	418990
1964	15700	122536
1965	20209	424984
1966	21944	439958

Medical and Health Personnel

According to 1951 Census there were 878 persons (679 males and 199 females) employed in the Medical and other Health Services in the district. Besides, there were 61 independent medical workers (44 males and 17 females). According to 1961 Census, the various categories of personnel, both private and public engaged in the Medical and Health Services, both in rural and urban areas, was as follows :

Categories of personnel both private and public engaged in Medical and Health Service	Total Area			Urban Area			Rural Area		
	Total	Males	Females	Males	Females	Total	Males	Females	Total
1. Physicians & Surgeons (Allopathic)	86	71	15	67	15	82	4	-	4
2. Physicians (Ayurvedic)	135	132	4	105	4	109	26	-	26
3. Physicians (Homeopathic and others)	35	33	2	8	1	9	25	1	26
4. Dentists	3	3	-	3	-	3	-	-	-
5. Nurses	146	60	86	60	80	140	-	6	6
6. Nursing Attendants & Related Workers	53	34	19	33	19	52	1	-	1
7. Pharmacists	9	9	-	9	-	9	-	-	-
8. Pharmaceutical Technicians	252	246	6	238	6	244	8	-	8
9. Other Medical and Health Technicians	43	18	25	16	20	36	2	5	7

The ratio of doctors to total population is 1 to 1721 for the district, 1 to 726 in the urban area and 1 to 4579 in the rural area. The rural population needs more medical facilities which have to be further extended to remote places.

Research Centres

Besides the Medical College (details of which are given in the chapter on Education) there is one Public Health Laboratory at Bikaner.

INDIGENOUS SYSTEM OF MEDICINE

The Ayurvedic system of medicine had its roots in the Vedic lore in the hoary past. In the course of time it developed, independently of any other system of medicine, into a mighty banyan tree giving shade and succour to the ailing. With age its vitality, however, withered and its inability to make further progress in research and on fundamentals of its concepts resulted in its stagnation. The art of surgery and knowledge of anatomy suffered a progressive decline, partly because of the growing prejudice against the dissection of dead bodies, and of the belief in the inviolability of ancient tenets on medicine, to which divine origin was ascribed, and to question their authority was considered sacrilegious and profane and partly because of the inroads made in its domain by Western Medical Science and surgery. But Ayurvedic system of medicine continued to flourish in the tradition bound rural areas and under the patronage and protection of the State and the wealthy classes in this district. Despite the introduction of the allopathic system of medicine, it is still widely believed that the indigenous system of medicine is better suited to our temper and climate. The Government of the former State of Bikaner had established Ayurvedic dispensaries at Pāndūn and a number of other places in the State in 1930-31 and sanctioned grant-in-aid to Mohta Pathshala Bikaner, to revitalise the system. Out of the six dispensaries established in 1930-31 only one at Pānchū was located in this district. The number of Ayurvedic aushdhalayas has since been increasing. Thus at the beginning of the First Five Year Plan, there were three Ayurvedic dispensaries in the district; their number increased to 14, 25 and 40 in the year 1955-56, 1960-61 and 1965-66 at the close of First, Second and Third Five Year Plans respectively. The work in the Aushadhalayas or Ayurvedic dispensaries is supervised by the Ayurvedic Inspector stationed at Bikaner. There is also one Unani dispensary in the district managed by a Vaidya. The location of most of these institutions and the number of patients treated in each in 1965-66 are given in Appendix II.

SANITATION

In the rural areas where the climate is dry but healthy and the population scanty and scattered, sanitary conditions are far better than in the wetter and less sparsely populated parts of the State. In recent years, under the community development programme, efforts have been made to make the streets free from garbage. With the establishment of Panchayat Samitis in 1959, steps were taken to improve sanitation by employing sanitary inspectors, watermen and sweepers. Construction of sanitary latrines, drains, smokeless *chulhas*, etc. have also been undertaken.

The maintenance of proper sanitary conditions in the urban areas is the primary responsibility of municipalities at Bikaner, Ganga-shahr, Bhinasar and Naukha. They employ staff like Jamadars, Bhish ties and Sweepers for the maintenance of proper sanitary conditions. (The details of the sanitary arrangements in urban areas of the district are given in the Chapter XIV entitled Local Self-Government).

WATER-SUPPLY

Piped water-supply is available at Bikaner city only where the water is filtered and chlorinated. Elsewhere, steps have been taken to improve water supply by disinfecting wells, and in some cases by covering them. In a very large number of villages the shortage is so acute that people drink it from any source of supply without demur provided it is not unpleasant to taste. For improving water supply, 91 wells and 66 *Kunds* (small tanks for storing water) were constructed and 293 wells and 176 tanks were repaired at the total cost of Rs. 24,00,000 during the First and Second Five Year Plans. These measures resulted in increasing and improving water-supply to a considerable extent but the problem is too great to be tackled in a short period and without large amount of expenditure.

The underground water is the main source for improving water-supply for drinking and other purposes. Generally it is found at 91 metres (300 feet) below the ground level and its column is only seven to eight feet deep, so the wells worked by power-driven machines are the most suitable means to meet water scarcity in the district. During the Third Five Year Plan a number of water-supply schemes were completed to meet the problem of shortage of water-supply. The details of these schemes are as follows :

Medical and Public Health Services

S. No.	Name of the place	Approximate cost of the scheme in rupees
1.	Pānchqūn	1,63,000
2.	Sarunda	76,700
3.	Berasar	76,100
4.	Kālu	10,000
5.	Lunkarnsar	10,000
6.	Deshnoke	3,26,000
7.	Naukha	2,63,000
8.	Jasrasar	1,58,220
9.	Kakra	1,13,100
10.	Surpura	1,00,000
11.	Rasidas	2,29,000
12.	Desalsar	1,25,000
13.	Bersingsar	2,00,000
14.	Udairamsar	15,800
15.	Kolāyat	—
16.	Nepālsar	1,10,200
17.	Sinthal	1,68,000
18.	Ramsar	40,000
19.	Gangashahr	6,40,000
20.	Bhinasar	2,67,000
21.	Mahājan	88,000
22.	Kanolai	45,000
23.	Udāsar	1,50,000

APPENDIX I

Statement of Dispensaries in the district during the year 1965-66

S.No.	Name of Dispensary	Doctors	Compounders	Midwife	Dai	Health-Visitor	Technicians
1.	City Dispensary No. II, Bikaner	1	2	1	-	-	-
2.	Fort Out-door Dispensary, Bikaner	1	9	-	1	-	-
3.	Infirmery Dispensary, Bikaner	1	1	-	-	-	-
4.	E. S. I. Dispensary, Bikaner	1	1	-	-	-	-
5.	Govt. Dispensary, Napāsar	-	1	-	-	-	-
6.	Govt. Dispensary, Palāna	1	1	-	1	-	-
7.	Govt. Dispensary, Lālgarh	1	2	-	1	-	-
8.	Govt. Dispensary, Hemmatsar	-	1	-	-	-	-
9.	Govt. Dispensary, Gaudiyala	1	-	-	-	-	-
10.	Govt. Dispensary, Lunkaransar	-	1	-	-	-	-
11.	Aid-Post Dispensary, Kālu	-	1	-	-	-	-

APPENDIX II

Details of Ayurvedic Aushdhalayas in the district

S. No.	Location	Patients treated in 1965-66
1.	Pūgal	2683
2.	Mālāsar	8308
3.	Sintal	14229
4.	Chhatargarh	1678
5.	Kesardesar	7741
6.	Rāmsar	12037
7.	Sattāsar	2964
8.	Khajuwala	779
9.	Jhajhu	7531
10.	Akasar	3184
11.	Khindāsar	4346
12.	Btkampur	2916
13.	Vijja Barju	2674
14.	Guda	2078
15.	Barsalpur	3920
16.	Bithnoke	2015
17.	Siāna	270
18.	Pānchūn	12525
19.	Kakora	15783
20.	Jasrāsar	12285
21.	Jaisingasar	8722
22.	Berāsar	18021
23.	Kāku	4171
24.	Deslasar	4525
25.	Jānglu	11445
26.	Rāsisar	7009
27.	Kuchor Athuni	11886
28.	Surpura	5307
29.	Badhnu	7963
30.	Gondusar	14096
31.	Mahājan	25760
32.	Jetpur	10002
33.	Mahadeowali	5119
34.	Karnīsar	3967
35.	Shaikhsar	8135

APPENDIX III

Patients treated in Government Hospitals, Dispensaries and Primary Health Centres in 1966

S. No.	No. of Potents
P.B. M. Men's Hospital, Bikaner	74,982
P.B.M. Women's Hospital, Bikaner	48,081
G.G.J.T.B. Hospital, Bikaner	1,094
Polics Line Hospital, Bikaner	3,055
District Jail, Hospital, Bikaner	3,511
City Dispensary No. 1, Bikaner	71,222
Govt. Hospital, Gajner	5,832
A.P. Hospital, Pūgal	1,564
City Dispensary No. 2, Bikaner	51,203
Fort Out-door Dispensary, Bikaner	38,771
T.B. Clinic, Bikaner	2,500
Infirmery Dispensary	Not available
E.S.I. Dispensary, Bikaner	Not available
Government Dispensary, Deshnoke	19,235
Government Dispensary, Gangashahr	30,693
Government Dispensary, Napāsar	12,343
Government Dispensary, Palāna	16,540
Government Dispensary, Lālgarh	8,798
Government Dispensary, Hemmatsar	4,514
Government Dispensary, Gadiyal	3,588
Government Dispensary, Lunkaransar	6,147
Aid-Post Dispensary, Kālu	5,804
Primary Health Centre, Napāsar	33,610
Primary Health Centre, Kālu	5,794
Primary Health Centre, Naukha	36,281
Primary Health Centre, Kolāyat	4,354
Railway Hospital Bikaner	2,64,858
Railway Hospital, Lālgarh	1,49,268
PRIVATE	
M.D. Binani Charitable Dispensary, Bikaner	19,782
Mohta Charitable Dispensary, Bikaner	18,724

CHAPTER XVII

OTHER SOCIAL SERVICES

Labour Welfare

The welfare of the working classes both inside and outside the factories has now become a major concern of the modern welfare State. The erstwhile State of Bikaner had adopted the Trade Disputes Act of 1931 with the object of keeping peace in the factories. As there is still no large scale industry located in the district, the provisions of the various ameliorative labour laws¹ relating to working conditions, wages provident fund, insurance, accident, sickness and maternity benefits, etc. are not applicable to workers of small scale registered industrial establishments employing approximately 6000 labourers. As such there is no statutory obligation on private employers to provide amenities to labourers. The only exception to the general reluctance of the employers to look after the welfare of their employees, is Bikaner Gypsum Bikaner, whose management runs a club, organises indoor and outdoor games, maintains a canteen and a ration shop and provides maternity and other medical benefits to its workers. Similar facilities are also extended by the railway management to its labour. All these measures together have resulted in increasing wages, providing improved working conditions, affording better opportunities for employment of labour and more amenities of life to the labourers and the members of their families.

Organisational Set-Up

The Regional Assistant Labour Commissioner, Bikaner is in charge of all welfare activities in the Bikaner Division comprising the districts of Bikaner, Churu and Gangānagar. He is assisted by two Labour Inspectors, one of whom helps him in supervising the activities of welfare centres, and other in enforcing labour laws.

1. The provisions of the following laws are enforced in the district :

1. Shops and Commercial Establishments Act, 1958
2. Indian Factories Act, 1948
3. Minimum Wages Act, 1948
4. Payment of Wages Act, 1936
5. Employment of Children Act, 1936
6. Employees' Provident Fund Act, 1952
7. Employees' State Insurance Act, 1948
8. Workmen's Compensation Act, 1923
9. Maternity Benefit Act, 1923

The labour welfare activities sponsored by the State Government aim at stimulating the morale of labour by helping them to raise their standard of living through subsidiary means, to re-orient their psychology by widening their mental horizon through education, and to give them a zest for life by providing facilities for games and sports, music and other means of entertainment. To achieve these objects, the Government of Rājasthān have opened the following welfare centres in the district, namely,

1. Government Labour Welfare Centre, Bikaner.
2. Government Labour Welfare Centre, Jāmsar.

These centres organise various welfare activities. Each centre is provided with a staff consisting of games supervisor, a lady tailor, a music master, a lady supervisor and five peons.

Prohibition

Not being a dry district, liquor and bhang can be consumed without any restriction, except liquor in public to avoid creation of nuisance. The possession and use of ganja and charas is strictly prohibited while opium is supplied to the addicts on ration cards on medical grounds but a quarterly reduction is made in their quota. This step has helped in reducing the open consumption of opium. There are 21 licensed vendors selling liquor, 6 sell bhang and one sells opium.

The following table shows the extent of consumption of intoxicants in the district from 1958-59 to 1965-66.

Year	COUNTRY spirit (litres)	Opium (Kg.)	Lancd Poppyheads (Kg.)	Bhang (Kg.)	Imported spirit wine (litres)	Imported beer (litres)	Indian made spirit (litres)	Indian made beer (litres)
1958-59	50,224	412	—	4,092	283	377	21,590	6,726
1959-60	62,730	100	—	3,994	347	177	22,038	9,190
1960-61	59,139	49	—	3,033	—	—	17,684	—
1961-62	56,755	28	—	3,840	—	—	10,699	—
1962-63	1,01,945	34	—	4,084	—	—	15,365	—
1963-64	2,02,682	52	58,987	5,271	20	—	12,101	—
1964-65	1,29,994	38	—	4,655	21	—	12,104	—
1965-66	1,12,788	43	20,208	4,703	253	5	12,575	15,029

1. Statistical Abstracts Rājasthān, yearly volumes for various years.

The consumption of liquor and bhang has increased partly as a result of the non-availability of opium and consequent change of habits. The district has no distillery but illicit distillation is carried on in certain villages on a small scale.

Social Welfare of Backward Classes and Tribes

According to 1961 Census, the total population of the Scheduled Castes and Tribes in the district was 65,982 persons (33,923 males and 32,059 females) and 1,034 persons (539 males and 495 females) respectively. The Scheduled Caste and Scheduled Tribes put together formed 15.07 per cent of the population of the district.

The male population of the Scheduled Castes and Tribes formed 7.40 and 0.018 per cent respectively in the urban, and 19.81 and 0.23 per cent in the rural areas, of the total population in the district. The corresponding percentage for females is 7.56 and 0.15 in the urban and 20.72 and 20.21 in the rural areas.

According to the 1961 Census the Scheduled Tribes consist predominately of Minacomunity which formed 96.3 per cent of the total strength of the Scheduled Tribes. Bhils and others (being classified) formed 1 and 2.7 per cent only. Among the Scheduled Castes, Meghwals are in majority and formed 54 per cent of the total Scheduled Caste population. The other important communities including Thoris or Nayak, Bhangi and Chamar, are 16.5, 7.7 and 7.3 per cent respectively. The other small communities include the following castes :

Balai	Kanjar
Bawaria	Khatic
Bhand	Koli
Dabgar	Majhabi
Dhankia	Mehtar
Dheda	Nut
Dome	Sansi
Gandia	Sarbhangi
Garoor or Garura	Sargara
Gavaria	Singhiwal
Jingar	Tirgar
Kalbelia	Valmiki
Kamad	

Persons belonging to Scheduled Castes and Tribes are mainly engaged in agriculture, cattle-breeding working as labourers and carrying on the occupation of tanning of hides and skins. Because of the traditional restrictions under which they formerly lived, and their being mostly illiterate, they are backward and poor. Those residing in border areas have to face the shortage of water and food besides rigours of climate. To ameliorate their socio-economic conditions the Social Welfare Department has taken various measures, which have been described below :

Hostels & Boarding Houses

To provide opportunities to such students as belonging to Scheduled Castes or Tribes, who cannot afford higher education or travel long distance for the purpose, there exist three hostels for boys and one for girls where all expenses-board, lodging, books and clothes etc. are borne by the Social Welfare Department of the Government. In addition to these hostels voluntary social organisations are maintaining three hostels, getting 90 per cent of their total expenses as aid from the Government of Rājasthān.

Mahila Sanskar Kendra

To create a sense of self-help, mutual co-operation and generally to promote social uplift among women, a social education centre is functioning at Bikaner since 1953 called Mahila Sanskar Kendra, Bikaner. It provides instructions in tailoring, embroidery and handicrafts. The average attendance of trainees is 35.

Princes Chand Kunwar Orphanage, Bikaner

It was established by Maharaja Ganga Singh to perpetuate the memory of his daughter, Rajkumari Chand Kunwar in 1920. It maintains and educates the helpless and destitute children enabling them to stand on their legs. At present it is run by the Social Welfare Department and all expenses are borne by the Government. The number of inmates during 1965-66 was 25. In 1966-67 its capacity to accommodate was increased to 40 inmates.

Industrial and Production Centre

To Improve the economic condition of the Scheduled Castes and Tribes, industrial centres have been set up where every apprentice gets a stipend of Rs. 15 per month during the training period and financial

help not exceeding Rs. 200 is provided to each of them on the completion of their training for the purpose of essential tools or equipments to enable them to earn their livelihood. A shoe-making centre has been working at Bikaner since 1955, where 15 apprentices are annually trained at the cost of Rs. 40,000.

Other Measures

The Government of Rājasthān has reserved 12½ per cent vacancies in Government service for the members of Scheduled Castes and Tribes. In 1965-66 their number in the various services in the district was 157. Out of which 3 were gazetted and 100 subordinate officers, 28 belonged to the clerical cadre and 26 were class four servants. To improve their living conditions, new colonies have been constructed, which include a *Harijan Basti* of 15 houses at Badni constructed in 1959-60 at the cost of Rs. 11,250, Mukta Prasad *Bhangi Basti* of 50 houses in Bikaner at a cost of Rs. 37,500 in 1959-60, Prabhudan *Nayak Basti* of 31 houses in Bikaner at a cost of Rs. 23,250 in 1958-59, a *Bhangi Basti* of 25 houses at a cost of Rs. 18,750 in nauka in 1959-60, and a *Bhangi Basti* of 14 houses in Desh noke at a cost of Rs. 10,500 in 1960-61, Gadia Lohar *Basti* of 68 houses at a cost of Rs. 57,000 in 1958-59, Ranisar *Basti*, Bikaner of 20 houses at a cost of Rs. 7,000 in 1955-56; Gangāshahr *Bhangi Basti* of 59 houses at a cost of Rs. 48,000 in 1962-67, Bhīnasar *Bhangi Basti* of 15 houses at a cost of Rs. 15,000 in 1966-67 and *Harijan Basti* at Palāna of 50 houses at a cost of Rs. 29,000 in 1956-57. Ten wells were constructed to provide drinking water. Adequate measures are also taken to provide them light and water by the local bodies.

The aim of all such Government schemes is to bring the backward sections of society at par with the rest. This is being achieved by giving them free education, absorbing such of them as are qualified into Government service, providing them living accommodation and other amenities of life, encouraging and developing cottage industries and various crafts and rehabilitating the landless among them by allotment of land. Changing times have awakened them and they are gradually becoming aware of their rights in its democratic set up. This awakening had a sobering effect on the communities higher up in social and economic ladder and they are becoming increasingly tolerant towards them. The advent of Independence in 1947 has proved a boon to the members of Scheduled Castes as it has

roused them to the awareness of their new dignity as free and equal citizens of the State. The villages in this district are throbbing with social and political consciousness. Shackles of caste and untouchability are slowly but steadily, loosening their hold as is manifest from the unopposed election of Meghwal to the State Legislature for two successive terms.

Trusts and Charitable Endowments

Charitable endowments play a considerable part in the social life of the community by starting, materially assisting and financing a number of schools and colleges, hospitals, *dharmashalas* and other institutions engaged in social services. The prominent endowments and trusts in the district are given below :

(1) Seth Ram Gopal Goverdhan Das Mohta Charitable Trust, Bikaner (created on 24th July, 1928 for helping institutions engaged in social services). (2) Shri Bhairav-Ratan-Matra Pathashala Trust, Bikaner instituted on November 6, 1943 for the maintenance of Shri Bhairav Ratan Matra Pathshala. (3) Seth Bahadur Mal Jasakaran, Sidhakaran Rampuria Trust, Bikaner created on March 18, 1933 for the maintenance of Jain College, Bikaner. (4) Seth Hira Lal Sobhag Mal Charitable Trust, Bikaner created on December 13, 1948 for the maintenance of H.S. Rampuria Vidya Niketan, Gangāshahr. (5) Mushmmat Jabbar Charitable Trust, Bikaner, instituted on March 15, 1943 for helping the institutions rendering medical and educational service to women. (6) Mohta Trust, Bikaner created on October, 28, 1928 for the maintenance of Mohta Hospital to provide both Ayurvedic and allopathic facilities of treatment, free of charge.



CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Representation in Parliament (Lok Sabha)

LOK SABHA—In the First General Elections 1952, Bikaner and Churu districts (excluding the Churu, Rājgarh and Tārānagar tahsils), the Nāgaur tahsil (excluding Nāgaur, Mūndwa and Khatu Kalan police stations) and the Lādnun and Baldwa police stations of the Dīdwāna tahsils of the Nāgaur district formed a single Parliamentary constituency.¹ In a total electorate of 3,97,481 valid votes cast were 1,87,557. The seat was won by an Independent candidate, who got 1,17,926 votes (the percentage of votes polled by him being 62.9). The remaining three contestants, one from the Congress, one from the Socialist Party and one from the Kisan Janata Samyukta Party, secured 54,227, 9,014 and 6,390 votes respectively. The last two lost their deposits.

At the time of the Second General Elections 1957, the Parliamentary constituency had been delimited again and was made a two member constituency (one member for general seat and the other for Scheduled Caste seat). This double member constituency comprised whole of Bikaner and Gānganagar districts and Churu district in part (excluding Sujāngarh tahsil except eleven villages²). In a total electorate of 8,05,673; the total number of votes was 16,11,346 (being double member constituency) and the number of valid votes cast was 6,85,550 (42.5 per cent). The number of contestants was six³ out of whom the Independent candidate (securing 2,28,267 or 33.3 per cent. votes) won the general seat and the Congress candidate (Scheduled Caste securing 1,41,293 or 20.6 per cent votes) won the reserved seat.

1. The Delimitation of Parliamentary and Assembly constituency (Rājasthān) order 1951; p. 3.
2. *Delimitation of constituencies for General Elections*, Election Department, Government of Rājasthān, 1957, p.3 and p.26. The names of the eleven villages are Randhisar, Dhatari, Jogalia, Jetasar, Dhaderu-godawalan; Dhaderubhanbhuwan; Bīdāsar, Dariba, Banetha Umaji, Banetha Jogilia and Upadiya.
3. *Report on the Second General Elections in India, 1957*, Vol. II (Statistical), Election Commission, India, pp. 184-185.

In the Third General Elections 1962, the Parliamentary constituency was again converted into a single member one and comprised eight Assembly constituencies¹, four located in this district and the remaining four in Churu district. In a total electorate of 4,68,948 the number of valid votes cast was 2,51,586, (55.52 per cent) which represented a rise of 13.02 per cent over percentage of valid votes polled during the 1957 Elections. Out of the three contestants—two Independents, and one Communist—one Independent candidate captured the seat securing 1,76,590 votes.

In the General Elections 1967, the Bikaner Parliamentary constituency comprised eight Assembly constituencies viz., Bikaner, Chhaper, Churu, Dungargarh, Kolayat, Lunkaransar, Naukha and Sardarshahr (four of this district and four of Churu district). In a total electorate of 5,51,193; 3,03,703 valid votes were cast. There were nine candidates (all Independents) who contested this Parliamentary seat. The seat was secured by an Independent candidate obtaining 2,15,636 valid votes (or 71 per cent).

Appendix I gives detailed information about all the four Parliamentary Elections which have been held in the district so far. No bye-election has been held for the Parliamentary seats of this district.

Representation in Legislative Assembly (Vidhan Sabha)

In the 1952 State Assembly Elections, the district had three constituencies, viz., Bikaner city, Naukha and Bikaner tahsil. In the Bikaner city constituency, comprising the area covered by the Bikaner city municipality, there was a total electorate of 54,975. The number of valid votes cast was 24,997 (45.5 per cent). Ten candidates contested the seat, which was won by an Independent securing 5,095 votes.

In the Naukha constituency, comprising the Naukha and Magra tahsils alongwith 25 villages of the Bikaner tahsil, out of 53,562 voters on the electoral roll, 21,250 (39.7 per cent) persons cast their votes. Of the four contestants an Independent candidate won the seat by securing 7,118 (33.6 per cent) votes.

The third constituency named Bikaner tahsil constituency comprised the area covered by the Bikaner tahsil (excluding the Bikaner

1. *Delimitation of Constituencies for General Elections*, Election Department, Government of Rajasthan, 1961, p.3.

city and twenty-five villages of the Bikaner tahsil appended to Naukha constituency for the election purposes) and the Lunkaransar tahsil. The total number of electors was 49,427 of whom 21,776 cast their votes (44.1). Of the five contestants, an Independent candidate was elected securing 10,512 votes (51.4 per cent).

In these assembly elections, there were nineteen candidates for the three seats. Independents (11) formed the largest group followed by the Congress (3), the Socialist (2), the Jan Sangh (1), the Ram Raja Parishad (1) and the Forward Bloc (1).

BYE-ELECTION IN 1956—A bye-election was held for the Bikaner tahsil constituency on 1st July, 1956 which had fallen vacant due to resignation of the representative. Three candidates—one from the Congress, one from the Praja Socialist Party, and one Independent—contested the elections. Out of the total valid votes (15,432) the Congress candidate secured 7,181 votes and was declared elected.

In the 1957 State Assembly Elections, the district had three constituencies, viz., Bikaner city, Lunkaransar and Naukha.

In the Bikaner City constituency, comprising the areas covered by the Bikaner municipality excluding wards No. 9 and 10, there was a total electorate of 46,352. The number of valid votes cast was 23,609 or 50.9 per cent which represented a rise of 5.4 per cent over the 45.5 per cent valid votes polled during the 1952 Elections. Seven candidates contested the seat, which was won by the candidate belonging to the Praja Socialist Party securing 12,083 votes (51.2 per cent).

In the Lunkaransar constituency, comprising the areas covered by Lunkaransar tahsil and the Bikaner tahsil (excluding Bikaner Municipality and the twenty-six villages of the tahsil)¹, there was a total electorate of 44,550, out of which the number of valid votes cast was 14,895 (33.4 per cent). Of the six contestants, the Congress candidate won the seat securing 4,838 (32.5 per cent) votes.

1. Bachasar, Sarupdesar; Barsingpura, Palana, Lalamdesar, Udransar Sujandesar, Deshnoke, Sujasar, Ambasar (Ghitotan Chohan), Gigasar; Surdhana Chohan; Surdhana Padiharan, Jor Beer Sarkari, Bhojan Shala, Sheo Bari; Gangashahr, Bhinagar, Kesardesar, Boran. Kesardesar Gangaguran, Kesar-desar Jatani, Ramsar, Siratpura, Mundasar and Basi.

In the Naukha constituency, comprising the areas covered by Naukha and Magra tahsils, some of the villages in the Bikaner tahsil, (excluded from the Lunkaransar constituency) and wards 9 and 10 of the Bikaner municipality, the total number of electorate was 89,965 and the number of valid votes cast was 55,068. It was a double member constituency having one general and the other reserved seat. The total number of contestants was eight. Both the seats were won by the Independent candidates securing 9,060 votes (16.5 per cent) for the general seat and 10,094 votes (18.3 per cent) for the reserved seat.

In these General Elections for the Assembly, there were twenty-one candidates for three general seats and one reserved seat. The Independents (14), formed the largest group of candidates, followed by the Congress (4), the Praja Socialist Party (2) and the Jan Sangh (1).

Bye-Elections in 1960

A bye-election for Naukha constituency was held on 29th August, 1960 due to the declaration of the elections as void. Out of 89,965 voters, 33,364 cast their votes, the valid votes totalling 32,097 or 31.2 per cent only. There were four contestants, the Congress candidate was declared elected having secured 14,901 votes.

In the Third General Elections, the double-member constituency of Naukha was constituted into a single member constituency for the Scheduled Caste seat and an additional constituency was created. Thus, while the number of seats remained four, the number of constituencies rose from three to four, namely, Naukha, Kolayat, Bikaner and Lunkaransar.

In the Naukha constituency, comprising the areas covered by the Naukha tahsil and a few villages¹ in Bikaner tahsil, the total electorate was 59,600 of whom 21,513 valid votes were polled. There were five contestants for the seat which was won by an Independent candidate having secured 12,695 votes.

In the Kolāyat constituency, comprising the areas covered by the Kolāyat tahsil (excluding Maganwala, Akalwala, Gulamwala and

Bhatiyān wala villages and hamlets of Barsalpur village), wards 9 and 10 of the Bikaner municipality and a few villages in the Bikaner tahsil, the total electorate was 61,514; out of whom 28,089 valid votes were polled. Out of the ten contestants the candidate of the Praja Socialist Party was elected with 7,976 votes.

In the Bikaner constituency, comprising the area covered by the Bikaner municipality (excluding wards numbering 9 and 10), there were 48,031 voters, of whom only 29,078 valid votes were polled. Eight candidates contested the seat of whom the candidate of the Praja Socialist Party was declared elected with 11,725 votes.

The Lunkaransar constituency comprised the area included in the Lunkaransar tahsil and the Bikaner tahsil (excluding the Bikaner municipality and some of the villages). In an electorate of 61,432; 25,165 valid votes were cast. There were seven contestants in all, and the seat was won by the candidate of the Congress party, securing 7,783 votes.

In this Election to the Assembly, 30 candidates contested for four seats. The largest number of contestants was that of the Independents (18), followed by the Congress (4), the Praja Socialist (3), the Jan Sangh (3), the Swatantra (1) and the Communist (1).

In the Fourth General Elections (1967) also, the district was delimited into the four constituencies viz., Bikaner, Kolāyat, Lunkaransar and Naukha. The Bikaner constituency comprised the Bikaner municipality excluding wards 22, 23, 24 and 28 to 32.¹ Of 63,247 total votes, only 39,651 valid votes were polled. The number of contestants was twelve out of them one was Congress candidates, one Communist (M), one Jan Sangh, one Praja Socialist and eight Independents. The seat was won by the Congress candidate securing 16,581 votes.

The Kolāyat constituency was carved out of the areas² viz., Bajju revenue circle, Kolāyat revenue circle, (excluding patwar circles—4-Akkasar, 5-Bholasar, 7-Jhaju and 8-Siyana), Patwar Circles 13-Godiya, 16-Bikanpur and 17-Mandal Charnan, in Diyatrar revenue circle in Kolāyat tahsil; Nalbadi revenue circle (excluding patwar

1. Villages in Bikaner tahsil included in Naukha Assembly constituency were : Deshnoke, Kesardesar Behran, Kesardesar Gangaguran, Ramsar, Mundsar and Suratsinghpura, vide *Delimitation of Constituencies for General Elections, 1961*, Election Department, Government of Rājasthān.

1. *Rājasthān Gazette - Extra-ordinary*, dated April 25, 1966, Part V (D), p. 5.
2. *ibid.*

circle 12-Napasar, 14-Tejrasar and 20-Ramsar) and wards 22, 23, 24 and 28 to 32 of Bikaner Municipality. Out of 66,521 votes 33,077 valid votes were polled. The Congress candidate defeated his seven rivals by securing 12,362 votes. The defeated seven contestants included one candidate of the Swatantra Party, one of the Samyukta Socialist Party and five Independents.

The Lunkaransar Constituency was formed¹ of Lunkarasar tahsil, Pugal and Jamsar revenue circles and Patwar Circles : 12-Napasar, 14-Tejrasar and 20-Ramsar, in Nalbadi revenue circles in Bikaner tahsil. The total number of voters was 69,385 and the number of valid votes 32,285. The Congress candidate won this seat defeating nine candidates (one Swatantra, one Praja Socialist Party, one Communist and six Independents) and secured 8,455 votes.

The fourth constituency (Naukha) comprised² Naukha tahsil, Diyatra revenue circle (excluding patwar circle 13-Godiyala, 16-Bikampur and 17-Mandal Charnan) and Patwar circles; 4-Akkasar, 5-Bholasar, 7-Jhaju and 8-Siyana, in Kolāyat revenue circle in the tahsil of the same name. This constituency had a total electorate of 73,697 and total valid votes polled was 27,256. This seat was secured by an Independent candidate who obtained 11,390 votes. The three defeated candidates were one Swatantra, one Congress and one Independent.

This election gave an opportunity to thirty-four contestants to contest four seats of the district. Their party affiliations were : the Congress 4, the Swatantra 3, the Praja Socialist Party 2, the Jan Sangh 1, the Communists (R) 1, the Communists (M) 1, the Samyukta Socialist Party 1. Besides these, the largest number of them was of Independents who were 21. The results were in favour of 3 Congress and one Independent candidates.

Appendix II gives the details of the Assembly Elections which have been held in the district so far.

POLITICAL PARTIES

Congress Party

The Praja Parishad Party³ of pre-Independence days was merged

1. *Rājasthān Gazette - Extra-ordinary*, dated April 25, 1966, Part V (D) p. 5.

2. *ibid.*, p. 5.

3. The historical background of Praja Parishad has been mentioned earlier in Chapter II.

into the Indian National Congress and was rechristened as the Bikaner District Congress Committee after Independence.

The Praja Parishad in collaboration with the All India States People's Conference had followed the policy and programme of the Indian National Congress with some adaptations to suit the special conditions obtaining in the State. It had pleaded for the establishment of responsible Government under the aegis of the Ruler. Having been founded in 1942, it was the only political organisation which agitated for the establishment of a Government answerable to the people in the State. After 1946, its activities were extended to sponsoring and participating in agitations launched for the redress of the grievances of *kisans*. Through platforms and press it also tried to convince the Government of the State to grant more freedom of expression to common man. Its activities in the State and outside, compelled the then State Government to come to terms with the popular leaders for the formation of a popular Government in 1947.

The scheme that ultimately emerged and sanctioned by the Maharaja, postulated a mixed Government, composed of equal representatives of the people and of other vested interests like jaghirdars. This Government of variegated political hues and opinion could not run smoothly. In the meanwhile the Ruler decided to merge his State into Rājasthān in 1949.

The District Congress Committee

The present District Congress Committee, as the representative of the premier political organisation of the country follows its constitution. It has a President, Vice-President, Secretaries and a Treasurer who are duly elected. Its ramifications extend to tahsils and villages which form the basic unit of the organisation. Tahsil committees form the Committee at the district level. Thus it is a compact and well knit organisation and covers the entire population comprised within the limits of the Bikaner district.

The party contested all the General Elections except that it did not put up any candidate for the Parliamentary seat in 1962 and 1967. In Assembly elections it has been progressively improving its position: it captured only Lunkaransar constituency in 1957 and retained it in 1962, but in 1967 Assembly elections, it captured three out of the four seats allotted to the district.

Praja Socialist Party

The Party was formed in the district in 1948 under the name of Socialist Party. At that time, a meeting of the General Council of the Socialist Party of India was held at Bikaner, in which many eminent leaders of the party participated. At present with its new nomenclature of Praja Socialist Party, its organisational pattern is moulded according to the constituencies. As there are four constituencies for the Legislative Assembly in the district, four branches have been organised at Bikaner, Lunkaransar, Naukha and Kolayat.

This party could secure one seat in the Assembly from the Bikaner constituency in the Second General Elections for the first time. In the Third General Elections, it secured two seats. It failed, however, to capture any seat in the Fourth General Elections.

Communist Party

It was started with ten members on 15th August, 1951. In the General Elections 1957, its candidate could secure only 6.8 per cent of the total votes polled for the Parliamentary seat, while in the Third General Elections it could secure only 5.4 per cent. These figures show that the party has little appeal for the electorate and whatever influence it possessed is on the decline. It could not secure any seat in the Assembly in 1962 and 1967 elections also.

Bhartiya Jan Sangh

The party was established in 1951. In the different Assembly Elections it secured 3.1 per cent votes in 1952; 1.3 per cent in 1957; 3.7 per cent votes in 1962 and 5.3 per cent votes in 1967 in the whole district. It is evident from these figures that so far the party has not been able to make much headway in the political whirlpool of the district.

Ram Rajya Parishad

The exact date of its opening in the district is not known. It contested one Assembly seat in the First General Elections and secured 18.2 per cent votes in the Bikaner city constituency and 6.7 per cent in the district as a whole. This was its first and last entry in the election affray in the district. The party is more or less defunct now.

Swatantra Party

The party was established in India on the eve of Third General

Elections. The organisational pattern of the party is based on the constituency delimitation. Each constituency area is further divided into panchayat samitis which in turn are composed of village-wards. In the third elections, for the Assembly seats, the party secured 8.1 per cent votes or 2.0 per cent votes in the district.

The following table shows the number of contestants party-wise in the General Elections so far held for the Assembly:

Party	Years			
	1952	1957	1962	1967
Congress	3	4	4	4
Communist (Right)	—	—	1	1
Communist (Marxist)	—	—	—	1
Jan Sangh	1	1	3	1
Socialists	2	—	—	1
Ram Rajya Parishad	1	—	—	—
Praja Socialists	—	2	3	2
Swatantra	—	—	1	3
Forward Block	1	—	—	—
Independents	11	14	18	21
Total of District	19	21	30	34

The popularity of the various political parties can be assessed on the basis of their performance in the last four Assembly Elections. The following table gives us the percentage of votes by each party in the district.

Party	Percentage of votes			
	1952	1957	1962	1967
Congress	23.9	23.6	28.6	32.7
Communist (Rightist)	—	—	5.8	1.0
Communist (Marxist)	—	—	—	0.3
Jan Sangh	3.1	1.3	3.7	5.3
Swatantra	—	—	2.0	9.4
Samyukta Socialists	—	—	—	6.5
Praja Socialists	—	20.9	20.4	9.5
Ram Rajya Parishad	6.7	—	—	—
Independents	66.3	54.2	39.5	35.3
Total	100.0	100.0	100.0	100.0

The following table gives the electoral turnout during the four General Elections in the district.

District/ State	Percent Turn out					
	1952	1957	Increase or decrease in vote conscious- ness over 1952	1962	Increase ¹ or decrease ² in vote con- sciousness over 1957	Increase ³ or decrease ³ in vote consci- ousness over 1962
Bikaner	43.1	42.0	-1.1	48.3	+6.3	51.74 +3.4
Rajasthan	38.2	41.2	+2.9	52.6	+11.4	58.19 +5.5

The table above is an indicator of the growing political consciousness among the people and their keenness to utilise their right to vote during the four general elections so far held in the area.

NEWS PAPERS AND PERIODICALS

In all 24 periodicals³ were published from the district in 1967 and all of them are published from Bikaner city. Of these, 1 is a Daily, 5 are Weeklies, 6 Fortnightlies, 9 Monthlies and 3 Quarterlies; 18 are published in Hindi, 5 in Hindi and English (bilingual) and one in Hindi, English and Sanskrit (multilingual). Some of them are not regular in their publication. Brief particulars of the periodicals are described below :

Daily

Kalam—The only daily paper of the district, first published in 1966, is printed at Shiv Printing Press, Bikaner. Priced at 5 paise per copy, it covers news and current affairs. Shri Lalit Kumar Azad is its publisher, owner and printer. Of the 2,000 copies printed, 1,571 are sold and the rest are distributed free of charge.

Weeklies

Churu Express—This Hindi weekly was started in 1961 and is printed at Lakshmi Printing Press, Bikaner by Shri Hazari Lal Tyagi as its editor, publisher and owner. It is priced at 12 paise and it gives news of local importance and current affairs. It has a circulation of 1,000 copies.

1. Report on General Elections, 1962, Election Department, Rajasthan, Jaipur, p. 67.
2. Fourth General Elections - A Statistical Review, 1967, Election Department, Rajasthan, Jaipur, pp. 4 and 81.
3. Press in India, 1967, Part II, Ministry of Information and Broadcasting, Government of India, New Delhi, pp. 625-63.

Lokmat—It is the oldest periodical of the erstwhile State, first published in 1947 from Lokmat Karyalaya located in civil lines on the hospital road in Bikaner city. Its founder, Shri Amba Lal Mathur, continues as its editor, publisher, printer and owner. It is published in Hindi and printed at its own press known as Lokmat Press. The paper covers general information and local news and costs 19 paise.

Senani—The publication of this Hindi weekly was started in the year 1950 from the Senani Karyalaya located in Pharon Ka Bazar, Bikaner city, by its printer and editor, Shri Sekhar Chandra Saxena. Priced 20 paise, it covers local as well as news of national importance. 40 per cent of its 5,900 copies which are published are supplied free while 60 per cent of them are sold.

Times of Rajasthan—Shri Abhey Prakash Bhatnagar is the owner, editor, printer and publisher of this Hindi weekly published at its own press, Times of Rajasthan Press, Bikaner. Priced at 15 paise, it covers local news and current affairs of State importance. It claims 1,627 subscribers out of the 2,000 copies printed.

Vartman—First published in 1951, it is printed in Hindi at Maheshwari Printing Press by its editor, owner and publisher, Shri Mangi Lal Mathur. It contains general news of local importance and other information. Its office is housed in Chopra building on the station road. Out of the 2,000 copies printed, 1,800 are sold while the rest distributed as complimentary copies free of charge.

Fortnightlies

Frontier Times—First started in 1966, this newspaper is printed at Gopal Printing Press and published from Chhabili ghati goga gate, Bikaner. Its editor, publisher and owner is Shri Lalchand Vyas. Its circulation is claimed at 1,000 copies (sold 250 and distributed free 750 copies). Priced at 15 paise per copy, it covers news and current affairs of local and regional importance.

Jagrat Shramik—It is owned by the Gypsum Mine Workers' Union, Jamsar and covers topics of interest to labourers and workers. It was started in 1963 and is published in Hindi. Its editor is Virendra Nath Gupta and is printed at Adarsh Mudranalaya, Bikaner.

Maheshwari Sewak—Owned by Shri Ram Chandra Binani, this periodical in Hindi was first published in 1956. Its office is located on the station road, Bikaner and is printed at Maheshwari Printing Press.

It covers topics of interest to the members of Maheshwari community and is priced at 30 paise. Its circulation is claimed at 1,865 copies (sold 1,540 and free distributed 325 copies).

Mazdoor Express—First published in 1965, it is edited, owned and printed by Shri Tikam Chand Khatri. It is printed at Adarsha Mudranalaya, Bikaner and published from Chhabili ghati, Bikaner. It deals with topics relating to labourers and their problems and is priced at 15 paise per copy.

Shakeel—This was first published in 1962. Its owner is Shakeel Ahmed. It is printed at Adarsh Mudranalaya, Bikaner and its editor, publisher and printer is Ahmad Hasan Quadri. Its price is 10 paise and it covers important information regarding films and movies in Hindi. The paper claims a circulation of 2,000 copies (sold 1,026 and distributed free, 974).

Shramanopasak—It is owned by Akhil Bharatvarshiya Sadhumargi Jain Sangh, Bikaner. Its printer, publisher and editor is Jugraj Sethia and is published for the welfare of the community. It is printed at Educational Press, Bikaner and is priced at 25 paise. Circulation number is claimed to be 2,411, (2,284 to subscribers and 127 copies for free distribution).

Monthlies

Gantantra Morcha—First published in 1965, this newspaper is edited, owned and printed by Shri Shiv Shanker Purohit. It is printed at Gopal Printing Press, Bikaner and priced at 15 paise each copy. It covers news and current affairs of regional importance.

Rajasthan Shikshalok—Published in Hindi and English, it was started in 1959. Its owner is Jugal Kishore Joshi and editor Shri Girdhari Lal. It is printed at Maheshwari Press, Bikaner. Its price is 50 paise. It covers educational topics.

Rajasthan Swayatta Shasan—It is again a bilingual (in Hindi and English) periodical started in 1963 and, published every month by the Rajasthan Local Self-Government Institute, Jaipur. Shri Govind Narain is its editor and publisher who gets it printed at Maheshwari Printing Press, Bikaner. Its subscription is 80 paise per copy.

Rajasthan Guidance News Letter—First published in 1965, it is a

bilingual monthly, dealing with matters of educational interest. It is printed at Government Press, Bikaner by the State Bureau of Educational and Vocational Guidance, Government of Rajasthan, Bikaner. Its editor is Shri Govind Narain Mathur. Dr. Gopal Krishna is its printer and publisher.

Swasthya Sarita—This Hindi magazine was formerly published from its own press Swasthya Sarita Press but now from Maheshwari Press, Bikaner. Its editor and owner is Shri Govind Narain. Priced at 50 paise, it deals with topics concerning health and medicines.

Shivira Patrika—First started in 1966, it is published from the office of the Additional Director, Primary and Secondary Education, Bikaner. It is printed at Government Press, Bikaner and owned by the Department of Education, Government of Rajasthan. Its editor is Shri Anil Bordia. Priced at 50 paise each copy, it covers news regarding current affairs.

Sahitya Sarita—First published in 1965, it is owned, printed published and edited by Surya Prakash Bissa. It is mainly a literary and cultural magazine, priced at 25 paise each copy. It is published from Surya Prakashan Mandir, Bikaner.

Shiksha Jyoti—An Educational monthly, started in 1963, it is published in Hindi and English at Jawahar Press, Bikaner and is priced at 50 paise only. The name of the owner and publisher is Vidya Sagar, while the editor is Girdhari Lal.

Vatayan—It is a Hindi magazine being published since 1961. Its office is located in Daga building, Bikaner and its publishing and proprietary right vest in Harish Bhadani. It is printed at Educational Press, Bikaner by its printer, Shekhar Chandra Saxena and its editor is Shri Vishwanath. It is a literary and cultural magazine. Its circulation number is 3,566 (sold 2,625 and distributed free, 941 copies) and its price is 70 paise.

Quarterlies

Homeo Sudha—This is owned by the K.H. Medical Institute located on Gajner road, Bikaner. It is printed in Hindi by its editor R. N. Bhati, at Jawahar Printing Press, Bikaner. Its subscription per copy is 75 paise. It deals with topics on health and medicine. Its circulation is 200 copies only.

Naya Shikshak—This publication was started in 1950. It is a bilingual (Hindi and English) periodical. Published under the authority of the Director of Primary and Secondary Education, Rajasthan, Bikaner, at the Government Press, Bikaner. Its circulation is stated to be 2,500 copies. It covers literary and cultural topics.

Vishvambhara—It is the only multilingual quarterly in Hindi, Sanskrit and English languages, published in the district. It belongs to Hindi Vishva Bharati Nagar Bhandar, Bikaner. Vidyadhar Shastri is its editor and it is printed at Maheshwari Printing Press, Bikaner. It is devoted to literature and culture. It has a circulation of 400 copies, priced at Rs. 2 per copy.

Others

Besides the local news papers, a large number of All India news papers and periodicals have a considerable number of readers in this district. The major national dailies and Rajasthan dailies enjoying State wide circulation are sold in large numbers in Bikaner, Lunkaran-sar, Gangashahr, Naukha and Kolayat. The main daily papers in circulation are the following:

The Hindustan, *The Navbharat Times* (from Delhi) and *Rashtrdoot*, *Rajasthan Patrika*, *Lokvani* (publication suspended for some time) from Jaipur, *Veer Arjun* (Delhi) and *Nav Jyoti* (Jaipur), all Hindi dailies which are widely read in the district. *The Hindustan*, *Times*, *The Times of India*, *The Indian Express*, *The Sunday Standard* and *The Statesman* (all in English) published at Delhi also find a fair number of readers.

The weekly papers in demand are *Dharmayug* (Bombay), *Saptahik Hindustan* (Delhi), *Urvashi* (Bombay), *Yojna* (Delhi), *Jwala* (Jaipur), *Illustrated Weekly* (Bombay), *Blitz* (Bombay), *Link* (Delhi), *Sports and Past Time* (Madras) and *Rajasthan Gazette* (Hindi and English).

The following monthly magazines and literary periodicals are also fairly popular—*Sarika* (Bombay), *Sarita*, *Rangbhumi*, *Chitra Lok*, all in Hindi and published from Delhi; *Navneet* (Bombay), and *Niharika* (Agra), in Hindi; and in English *Readers Digest* (U.K.) and *English Digest* (U.K.).

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Indian Red Cross Society

The State Branch of Indian Red Cross Society has been carrying on its humanitarian work in the district. Apart from the normal activities of the society, relief to famine and draught stricken people is organised, which is almost a regular feature of the area. Articles viz., milk, multivitamin tablets, peas and various other materials are supplied to district authorities for distribution among the poor and the needy.

The State branch has also been running a training school, at the district headquarters for providing training facilities in General Nursing of three and half years' course, each of the trainees gets a stipend of Rs. 80 per month. According to the scheme, these trained nurses are likely to be absorbed in the Rajasthan Medical Department hospitals which are short of them.

Bharat Sewak Samaj

District branch of the Bharat Sewak Samaj was established recently in Bikaner to organise camps, arrange for plan publicity and encourage such activities as would lead to national integration among the various sections of the society. Besides undertaking these social activities, it started, in 1965, a College known as Nehru Sharda Peeth (Evening College for such persons who cannot pursue their studies in day-colleges). The College, affiliated to the Rajasthan University, Jaipur, runs the degree classes in Faculties of Arts and Commerce. The college has been trying to build a good library for the benefit of its students numbering 153 (1966-67).

Besides, the Samaj has collaborated with the district administration in the distribution of rations in Bikaner city through five shops opened in various localities recently. Rifle training is imparted to the citizens so that they may serve the nation in need and adversity. It helps the landless peasants in getting land. The Samaj enjoys full co-operation of the people in general.

Shri Bikaner Mahila Mandal

This institution was started on 15th August, 1947 by a group of ladies prominent among them beign Shrimati Gulab Kumari Shekhawat and Saraswati Devi Mohata. Its object is to promote education

among women. It has been doing useful work for the all round development of women. Besides short term educational courses, it has started classes for knitting, weaving, tailoring, adult education, fine arts, dance and music. For the care of children accompanying mothers at the various classes, necessary provision has been made by the Institution. It has extended its activities by opening several branches of this type in the city. The Mandal also organises social service camps, exhibitions, and public meetings for the purpose of attracting more and more women to derive benefit from the noble work being done by it. A Co-operative Society named Bikaner Mahila Mandal Grih Udyog Sahkari Samiti is also being run by the institution. So far as its financial position is concerned it receives, besides donations from the philanthropists, grants from the State Government, and the Central Welfare Board.

Mahila Jagriti Parishad, Bikaner

The Parishad was established on 2nd May, 1949 with the object of providing training for all round development of women of the area. Under its auspices, adult education centres, and centres for giving training in knitting and sewing, home science and cottage industries are running since its establishment. Efforts have been made to eradicate outmoded customs and traditions by imparting education to the inmates.

Rajasthan Mahila Parishad, Bikaner

This institution started functioning from 1st May, 1960 and is a branch of the All India Women's Conference. It aims also to work for the all-round development of women. It provides training centres for cottage industries and has started a *Balbadi* where 56 children were being educated in 1965-66. Milk and mid-day meal, free of cost, are provided to children belonging to the families of limited means. Besides establishing a circulatory library, it runs a *Bal Badi*.

Bharat Yuvak Samaj

Recently a branch of the Bharat Yuvak Samaj has been established at Bikaner. Its object is to work among youth and students with a view to training them to be good citizens. Their programme includes holding of seminars, camps, study circles and cultural programmes for the purpose. During national emergency caused by the aggression of China (in 1962) and Pakistan (in 1965) against

India, the Samaj co-operated with the authorities in implementing the defence programmes and its volunteers worked hard in collecting funds for the welfare of the fighting forces.

Harijan Sevak Sangh, Bikaner

Since its inception in 1945, the Sangh has worked for the amelioration of the conditions of the Harijans in the district. It has tried to wipe out the bane of untouchability by conferences and community dinners. Education has been popularised, cottage industries started, landless persons rehabilitated, and living accommodation with amenities of light and water etc., provided to the Harijans through its activities.

Defence efforts

Under the chairmanship of the Collector, five district level committees, viz; Public Relations; Public Co-operation; Medical Relief; Contribution of women in Defence Preparedness and Collection of Defence Fund were formed, which kept their liaison with the committees formed at the State level for the same purposes. All classes of people in the district contributed to the National Defence Fund created to boost up the morale of the people.

Total contribution to this Fund from Bikaner district came to Rs. 4,36,334 at the time of Chinese aggression in 1962 and Rs 4,20,857 at the time of Pakistani aggression in 1965. Besides contributing in money, people donated gold, silver and other articles of use to the armed forces and their dependents. People thronged in large numbers to enlist themselves as members of the Armed Forces at all the recruiting centres in the district immediately after the aggression. Panchayat samitis of the district took necessary action to step up food production in their areas. A new contingent of Home Guards was raised in the district and people were made familiar with civil defence measures.

Bikaner being a border district, more awareness of the danger was visible among people during Pakistani aggression. The disciplined way in which they carried out Black-out rehearsals and other civil defence measures specially during the crucial months of September, October and November, 1965 was an indication of their resolve to face danger and calamity manfully and heroically in times of national peril.

APPENDIX I
Details of General Elections for Parliament (Lok Sabha) of Bikaner Constituency

General Elections	Candidates Seats Contesting	Electorate	Total votes polled	Valid votes polled	Percentage of polling	Party affiliation	Partywise votes polled		Successful Party
							No.	Percentage	
1952 (First)	1 4	3,97,481	N.A.	1,87,557	48.67	Independent	1,17,926	62.9	Independent
						Congress	54,227	28.9	
						Socialist	9,014	4.8	
						Kisan Janata			
						Samyukta Party	6,390	3.4	
1957 (Second)	2 6	8,05,673	16,11,346	6,85,550	42.5	Independent	2,28,267	33.3	Independent
						Congress	1,29,303	18.9	
						Congress(S.C.)	1,41,293	20.6	Congress(S.C.)
						Independent	89,086	13.0	
						Independent	51,047	7.4	
						Communist	46,554	6.8	
1962 (Third)	1 3	4,68,948	2,60,370	2,51,586	55.5	Independent	1,76,590	70.2	Independent
						Independent	61,523	24.4	
						Communist	13,473	5.4	
1967 (Fourth)	1 9	5,51,193	3,17,472	3,03,703	57.6	Independent	2,15,636	71.0	Independent
						"	21,820	7.2	
						"	18,564	6.1	
						"	11,186	3.7	
						"	9,765	3.2	
						"	8,657	2.9	
						"	7,677	2.5	
						"	6,503	2.1	
						"	3,895	1.3	

APPENDIX II
Details of General Elections for Legislative Assembly (Vidhan Sabha) in Bikaner District

S.No.	Constituency	Electorate	Total votes polled	Valid votes polled	Percentage of polling	Party affiliations	Party-wise votes polled		Successful Party
							No.	Percentage	
1	2	3	4	5	6	7	8	9	10
First General Elections, 1952									
1.	Bikaner city	54,975	N.A.	24,997	45.5	1. Independent 2. Ram Rajya Parishad 3. Congress 4. Socialist 5. Independent 6. Jan Sangh 7. Independent 8. Independent 9. Independent 10. Independent	5,095 4,546 4,533 2,318 2,214 2,085 1,783 1,182 712 529	20.5 18.2 18.1 9.3 8.8 8.3 7.1 4.7 2.9 2.1	Independent
2.	Naukha	53,562	N.A.	21,250	39.7	1. Independent 2. Congress 3. Independent 4. Independent	7,138 5,752 4,271 4,089	33.6 27.1 20.1 19.2	Independent
3.	Bikaner tahsil	49,427	N.A.	21,776	44.1	1. Independent 2. Congress 3. Independent 4. Socialist 5. Forward Bloc	10,512 5,996 2,327 1,610 1,331	51.4 29.3 11.4 7.9 6.1	Independent

APPENDIX II (contd.)

1	2	3	4	5	6	7	8	9	10
Second General Elections, 1957									
1. Bikaner city	46,352	N.A.	23,609	50.9	1. Praja Socialist	12,089	51.2	Praja Socialist Party	
					2. Congress	5,419	22.9		
					3. Independent	2,602	11.0		
					4. Jan Sangh	1,202	5.1		
					5. Independent	1,077	4.6		
					6. Independent	707	3.0		
					7. Independent	513	2.2		
2. Lunkaransar	44,550	N.A.	14,895	33.4	1. Congress	4,838	32.5	Congress	
					2. Independent	2,874	19.3		
					3. Independent	2,751	18.5		
					4. Independent	2,062	13.8		
					5. Independent	1,772	11.9		
					6. Independent	598	4.0		
Naukha (S.C.)	89,965	N.A.	55,013	36.2	1. Independent(S.C.)	10,094	14.3	Independent (S.C.)	
					2. Independent	9,060	16.5	Independent	
					3. Praja Socialist	7,525	13.7		
					4. Congress (S.C.)	7,084	12.9		
					5. Independent	6,957	12.6		
					6. Independent	5,744	10.4		
					7. Congress	4,742	8.6		
					8. Independent	3,862	7.0		
Third General Elections, 1962									
1. Naukha (S.C.)	59,600	23,937	21,513	40.2	1. Independent	12,095	56.2	Independent	
					2. Congress	6,753	31.4		
					3. Independent	1,414	6.5		
					4. Independent	767	3.6		
					5. Independent	484	2.3		
2. Kolāyat	61,514	29,881	28,089	48.6	1. Praja Socialist	7,976	28.4	Praja Socialist Party	
					2. Independent	6,320	22.5		

APPENDIX II (Contd.)

1	2	3	4	5	6	7	8	9	10
3. Bikaner									
		48,039	30,577	29,078	63.6	3. Congress	5,466	19.5	Praja Socialist Party
						4. Independent	3,580	12.7	
						5. Independent	1,293	4.6	
						6. Independent	1,095	3.9	
						7. Independent	1,013	3.5	
						8. Jan Sangh	663	2.3	
						9. Independent	475	1.8	
						10. Independent	208	.8	
						1. Praja Socialist	11,725	40.2	
						2. Congress	9,673	33.3	
4. Lunkaransar									
		61,432	27,114	25,165	44.1	3. Independent	3,508	12.1	Congress
						4. Independent	1,419	4.9	
						5. Jan Sangh	1,265	4.4	
						6. Independent	1,265	4.4	
						7. Independent	844	2.9	
						8. Independent	399	1.4	
						9. Independent	245	.8	
						10. Independent	245	.8	
Fourth General Elections, 1967									
1. Bikaner	63,247	41,244	39,651	65.2	1. Congress	16,581	41.8	41.8	Congress
					2. Praja Socialist	12,113	30.8	30.8	
					3. Jan Sangh	7,058	17.8	17.8	
					4. Independent	1,753	4.4	4.4	
					5. Independent	978	2.5	2.5	
					6. Communist (M)	381	.9	.9	

1	2	3	4	5	6	7	8	9	10
						7. Independent	212	.5	
						8. Independent	106	.3	
						9. Independent	103	.3	
						10. Independent	103	.3	
						11. Independent	88	.2	
						12. Independent	75	.2	
2. Kolāyat		66,521	35,107	33,077	52.8	1. Congress	12,362	37.4	Congress
						2. Samyukt Socialist	8,633	26.1	
						3. Swatantra Party	5,078	15.3	
						4. Independent	3,832	11.6	
						5. Independent	1,929	5.8	
						6. Independent	621	1.9	
						7. Independent	423	1.3	
						8. Independent	199	.6	
3. Lunkaransar		69,385	34,430	32,285	49.6	1. Congress	8,455	26.2	Congress
						2. Independent	7,160	22.2	
						3. Independent	5,089	15.7	
						4. Independent	4,442	13.8	
						5. Independent	2,458	7.6	
						6. Independent	1,895	5.8	
						7. Communist	1,345	4.2	
						8. Swatantra	767	2.4	
						9. Independent	385	1.2	
						10. Praja Socialist	289	.9	
4. Naukha (S.C.)		73,697	29,901	27,255	40.6	1. Independent	11,390	41.8	Independent
						2. Swatantra	6,510	23.9	
						3. Congress	5,870	21.5	
						4. Independent	3,486	12.8	

Source : *Reports on the First (1952), Second (1957), Third (1962) and Fourth (1967) General Elections in India, Vols. II (Statistical).*
N.A. = Not available.

CHAPTER XIX

Bikaner City

Though surrounded by arid lands all around, the city contains many lofty houses and temples and a massive fort. Carvings in red stone used therein are perhaps the most profuse of all such used in the former capitals of Rājputāna States. Viewed from a height, it presents the appearance of an affluent city with an imposing wall interspersed with many a round tower; and with a few magnificent mansions of the rich, the domes of the temples and minarets of the mosques, rising above the ramparts.

In the centre of the city there is one Jain temple known as Chintamani's temple¹ from where five larger streets branch off which

1. Artistically a beautiful temple construction of which was completed in 1503 A.D.

following a tortuous course and often losing their identity in the intermingling of other streets lead towards one or the other of the large gate-ways. At a distance of about 274 metres (300 yards) from the Kote gate, is situated the fort and the linking road has developed into a fashionable market-place for the city. Near the fort, there is one big tank known as Sur Sagar which was constructed by and named after Maharaja Sur Singh. It is the biggest tank in the city and remains filled with rain water throughout the year. Now the water of the tank being dirty can at best be used for irrigational purposes.

The average annual rainfall in the city is about 306.1 mm. Extreme heat in summer and extreme cold in winter mark its climate. The temperature rises rapidly after March. June is the hottest month with the mean daily maximum temperature at 41.5°C (106.7°F) and mean daily minimum temperature at 29.3°C (84.7°F). The temperature sometimes goes upto 49°C (120°F) in summer. During the winter season, the temperature sometimes touches 2°C or 3°C below freezing point. Water at Bikaner is obtainable generally at the depth of 90 to 100 metres and is said to be rich in digestive properties. It is somewhat hard from excess of lime derived from the stratum of *Kankar* but otherwise pure and healthy. Here Alakh Sagar Well, which was once a principal source of water supply, outside Kote gate merits special mention. It is one of the two wells Lalgir got constructed after he received some money from Maharaja Ram Singh on his return from pilgrimage. Other well is at Lalgir's birth place Sulkhaniya. For the construction of the Alakh Sagar well at Bikaner, Lalgir also received money from people important of whom was Lacchi Ram Rakhecha. Red-stone for the well was brought on camels from Dulmera. It was the biggest and finest well of the State. Water was drawn by eight pairs of oxen in four directions, and carried into the city in large earthen jars or leather *pakhals*. The construction of the well was started in *Samvat* 1901 and completed in *Samvat* 1922. However, according to one source the work commenced in *Samvat* 1909 and completed in *Samvat* 1924. With the augmentation of water-works, which supplies filtered water, the well is now more a thing of historical importance. Besides the wells, Lalgir got constructed a *math* on Ganga Shahar road Anup Sāgar (Chautina) well is also very important.

1 See *Rajputana Gazetteer*, Vol. III A, *The Western Rājputāna States Residency and Bikaner Agency*, 1909, p. 383, and *Alkhiya Sampraday*, Chandradan Charan, Bhartiya Vidya Mandir Shodh Pratishthan, Bikaner, 1964, pp. 25 and 55-56.

Inside the city, the roads are well laid and three-wheeler scooters and tongas cater to the travellers' needs. There is a circuit house (State Hotel), a dak bungalow and a number of *dharamshalas*, besides a few hotels¹ to stay at. For recreation, there is a posh club known as Sadul Club, besides, the Jubilee and the Railway clubs. Three cinema houses viz., Ganga Theatre, Prakash Chitra and Vishwajyoti Theatre are also operating in the city.

Bikaner is a good educational centre. There is a medical college, a veterinary college, a post-degree college, a degree college for girls, a poly-technic and an industrial training institute. A public school, known as the Sadul Public School also exists, besides many higher secondary and middle schools.

The city is well connected, both by rail and road with Delhi, Jodhpur and Jaipur. It is 463 kilometres from Delhi, 377 kilometres from Jaipur and 276 kilometres from Jodhpur by rail. A direct train also goes from here to Bhatinda passing through Hanumāgarh on the way.

A brief description of important places of interest, inside the city, is given below :

BIKA-KI-TEKRI (Old Fort)—Built by Rao Bika three years before, he founded the city, the old fort is situated on high rocky ground in the south-west of the city. The site of the fort was determined by one Napo who was great observer of omens. It is in ruins and now rather a shrine than a fort. In the vicinity are the cenotaphs of Rao Bika, Rao Naraji, Rao Lunkaran and Rao Jet Singh with inscriptions giving the dates of funerals and the number of *satīs* who immolated themselves on the pyre. Bika's cenotaph was originally built of red stone but was later re-erected in marble.

LARGE FORT—This fort was constructed during the reign of Rai Singh. It is believed that the site of this fort too was determined in times of Rao Bika by omens. It is said that Napo and Naro were sent for the purpose. During their sojourn, they saw one early morning a man asleep

1. Since January, 1972, well known Lālgarh and Gajner palaces which till recently were the residential palaces of the Maharaja of Bikaner have been converted into hotels.

using a tuft of *bharut* grass as a pillow, and a snake was sitting over the tuft in a coil. Napo and Naro watched the reptile instead of molesting it. When the snake moved, they followed it and were led to the same place where they had earlier seen the incident of sheep and wolves. The spot where the snake had first been seen was selected by Napo as auspicious for erection of the fort.

The construction of the fort started in *Samvat* 1645 (1589 A.D.) by Karam Chand the minister of Rai Singh as the latter had been employed as *Subedar* of Burhanpur by Akbar from *Samvat* 1642 to 1649. Rai Singh had planned the fort and Karam Chand executed the plan under his orders. The construction was completed in *Samvat* 1650 (1594 A.D.) the year after Rai Singh's return from the south.

The fort is situated at some distance, near the Collectorate, from Kote gate and has a circumference of 985 metres (1078 yards). It also contains palaces which give the fort an imposing look. The palace buildings were raised piece-meal by successive rulers, nearly every one of them adding some thing. There are two entrances each of which has three or four successive gates having different names. A moat runs all around in direction parallel to the curtains without following the curve of the bastions. The moat is about 9 metres (30 feet) wide at the top but narrow at the bottom, and 6 to 8 metres (20 to 25 ft.) deep. The main entrance facing towards east is known as *Karan Pol*. Next to it, is known as *Suraj Pol* on the two corners of which are statues of great warriors Jaimal and Patta riding on the elephants. A little ahead is a big courtyard with palaces on two sides. Stones in excellent design adorn the palaces particularly in Ganga Niwas Durbar Hall. A large door of the Anup Mahal in the fort has a very superior gesso ornamentation. Besides, the gilded carved decorations on the walls of Anup Mahal are worth admiration.

Frescos on the walls of palaces bear originality in the design of trees, flowers, clouds and figures. The sensitive drawing, luminous colouring and the graceful curves of figures are simply marvellous. They are striking examples of Rajput School of Painting though not free from the influence of Mughal art.

The historical heir-looms of the Rathors consisting of a throne, umbrella, a dagger, the Barisal Nagara etc. brought by Rao Bika from Jodhpur are also preserved in the fort.

In one of the parts of the palace, a small armoury section is maintained which exhibits old arms, both offensive and defensive. The important portions of the palace are Chaubara erected by Raja Rai Singh; Phool Mahal, Chandra Mahal, Gaj Mandir and Kacheri built by Maharaja Gaj Singh; Anup Mahal is best of all and dates back to Surat Singh's time; Chhatra Mahal and Chini Burj built by Maharaja Dungar Singh; Ganga Niwas called after and built by Maharaja Ganga Singh, is a handsome room the interior of which consists of carved red stone, ceiling of carved wood and the floor of marble. The palaces are open to visitors on payment of a nominal fee.

LALGARH PALACE—It is one of the most magnificent buildings in the city of Bikaner and is at present the residence of the Maharaja. The palace is situated outside the city at some distance. It was constructed by Maharaja Ganga Singh in the beginning of this century in memory of his father Lal Singh. It is built of red stone and has attractive carvings. Details of highly carved work can also be seen in the main porch of the palace, which consisting of rich floral devices with their curly and sinuous tendrils, expressive figures of animals and gods and goddesses from Hindu mythology, all blended in harmonious patterns, create ornamentations of great beauty and charm. Inside the palace, the flooring has mostly been done in marble. Within the compound, beautifully planned garden has been laid out; and its one of the corners bristles with a swimming pool with attractive lighting arrangements. The palace has about a hundred suits and a very rich library containing some original documents and rare books. A full-sized statue of Lal Singh faces the palace.

GANGA NIWAS PUBLIC PARK—Named after Maharaja Ganga Singh, the Park is situated in front of the fort near Sursagar. Its inauguration ceremony was performed in A.D. 1915 by the then Viceroy Lord Hardings. Its main gate was called, Queen Empress Gate, and it is approachable through five other gates. The park is well planned and is attractively designed. In one corner stands Maharaja Dungar Singh's statue of marble. Facing the main gate is the bronze statue of Maharaja Ganga Singh on a horse back. Adjacent to it is a tank named after Egerton who was the tutor of Maharaja Ganga Singh. Almost in the centre inside

the park, stands a tower in red stone. The collectorate, court of the district & sessions judge, other executive and judicial courts, office of the State Bank of Bikaner & Jaipur, office of the Urban Improvement Trust, Telephone Exchange, Ganga Theatre etc. are all located inside the park.

GANGA GOLDEN JUBILÉE MUSEUM—A visit to the museum is a rewarding experience. Details about this have been given on pp. 360-362 of this volume.

LAXMI NARAIN TEMPLE—Among the temples of Vaishnavas, the temple of Laxmi Narayan (also called Laxmi Nath) is considered to be the principal one. Situated near *Bika-Ki-Tekri*, it was built by Rao Lunkaran who ruled Bikaner between 1505 and 1526 A.D. During the reign of Maharaja Ganga Singh, a beautiful park was laid in the compound of the temple for general use which has further added to its beauty. Other important temples of Vallabhacharis are Raj Ratan Bihariji and Rasik Shiromaniji near Collectorate; outside the temples is a beautiful park. Unta Devi's temple is unique as the goddess is shown mounting a camel.

BHANDASAR TEMPLE—In the south-west of the city, there is a magnificent temple built by an Oswal Mahajan known as Bhanda. It is said to be older than the city having been built in or about *Samvat* 1468. The temple is so high that all the parts of the city are visible from the top of the temple. The building has elaborate stone carving. Another temple, namely, Neminath has been attributed to Bhanda's brother.

DHUNI NATH TEMPLE—Containing the images of five chief deities—Brahma, Vishnu, Mahesh, Surya and Ganesh, the temple is called Dhuni Nath K: Panch Mandir. It was constructed by one Jogi, Dhuni Nath in 1808 A.D. (*Samvat* 1865) during Surat Singh's time.

Zoo—Inside the Ganga Niwas Public park, a small zoo is maintained where various types of animals and birds are preserved for the amusement of the visitors. The Great Indian Bustard, which is a rare bird these days, and, which generally does not survive in captivity, is well preserved here. Other important birds and animals kept here include pigeons, doves both spotted and white, *surya mukhi* budgerigars, parrots, parakeet, hawks, owls, ducks, flamingoes, a lion, a tiger,

leopards, sloth bear, wild pig, wolf, jackal, porcupine, black buck, spotted deer, chinkara, *sambar*, blue bull, hare, monkey, crocodiles etc.

Deshnoke

Deshnoke, a small town with a population of 6,880 in 1961, is famous for the temple of Karniji, worshipped as the tutelary deity of the erstwhile ruling family of Bikaner. Situated in the south of Bikaner city, Deshnoke is connected both by rail (33 Km.) and road (30.4 Km.). The temple is believed to have been built by Karniji herself in the fifteenth or sixteenth century and is held in great reverence. According to old tradition, Karniji is described as a Charan woman, gifted with supernatural power, who lived from 1387 to 1538 A.D. Rao Bika, while entering this territory in 1465 A.D. paid his respects to her. She is believed to have prophesied to him "your destiny is higher than your father's, and many servants will touch your feet". This prophecy proved true and hence she was regarded as the protectress of the State. Even the marriage of Rao Bika with Rang Kunwari, daughter of Shekha the Bhati Rao of Pugal, was dictated by the wishes of Karniji. Shekha paid respects to Karniji on fourteenth of every fortnight and styled himself her brother. Shekha did not favour his daughter's marriage with Bika. However, when Karniji was approached by Shekha's lady for Shekha's release who was taken captive to the Subadar of Multan by Multan garrison, Karniji promised the release of Shekha if the arrangements of Rang Kunwar with Rao Bika were made forthwith. Karniji herself was present at the marriage ceremony. When the circuit ceremony approached, Karniji fled off to Multan and brought Shekha and caused him to complete the ceremony¹.

In obedience of the direction of Karniji, Bika stayed for three years at Chandasar and then dwelt for six years at Deshnoke where he frequently waited on Karniji.² In former times no outlaw taking refuge in this temple could be arrested, but this custom was abolished in 18703.

Historical and religious significance apart, one very distinguishing feature of the temple is a large number of rats, locally known as Karniji's *Kabas*, are seen moving about freely on the floor of the temple

1. Powlett, P. W., *Gazetteer of the Bikaner State*, 1935, p. 2.

2. *ibid.*, p. 2.

3. Erskine, K. D., *Rajputana Gazetteer*, Vol. III-A, *The Western Rajputana States Residency and Bikaner Agency*, 1909, p. 382.

as the *Kabas* are fed and not molested there. To see a white rat is believed to be auspicious. Similarly, it is believed to augur well for a man if a rat climbs over his shoulders inside the temple. Though the temple is not archaeologically very important, the stone carving on the entrance gate deserves special mention. This entrance was reconstructed during the reign of Maharaja Ganga Singh and has attractive sculptural models in white marble with floral and figural design.

The town served with a municipality is electrified and has the facility of water supply through waterworks. There are a *Dharamshala* (built in *Samvat* 1967), a rest house, a Post and Telegraph office, one Higher Secondary School, one Middle School for boys, one Primary School for boys, one Primary School for girls, a Hospital, a Veterinary Hospital, a Wool Production Centre, State Bank of Bikaner and Jaipur and a Police Station.

Devi Kund

This place is situated 6 kilometres in the east of the city. The members of the ruling family of Bikaner, subsequent to Jet Singh, the great grand son of Bika, have been cremated here. On the sides of the reservoir of water lie the cenotaphs of the chiefs from Rao Kalyan Singh to the last Maharaja Sadul Singh, as well as those of their wives and other important members of their families. Several of the cenotaphs have beautiful structures with graceful pillared domes having fine enamel work on or under their surfaces, which with the lapse of time, has decayed and disappeared wholly or partially. Prior to 1828 A.D. the material used for the buildings was red sandstone of Dulmera and marble from Makrāna for the commemorative tablets, but afterwards all important cenotaphs have been constructed of marble. On some of the commemorative stones, the mounted figure of the chief is sculptured in bas-relief. On the lower side stand the wives in order of precedence, and below the chief the concubines who mounted his funeral pyre. This is the general rule observed in executing the bas-reliefs except in case of Anup Singh's cenotaph, where two *Ranis* along with three concubines are shown standing in front of the chief. From a study of the tablets of the cenotaphs, it becomes evident that as many as twenty-two females burnt themselves with the corpse of their Lord Zorawar Singh. Up to the time of Gaj Singh, the average number of *Satis* was over twelve to each chief. The cenotaph of Maharaja Raj Singh is noteworthy for containing the figure of a man named Sangram Singh, who immolated on

Maharaja's pyre like a *sati*. The cenotaph of Maharaja Surat Singh's second son Moti Singh, who died in *Samvat* 1882 (A.D. 1825) needs special mention. His wife Dip Kunwar, a Udaipur Princess, was the last distinguished *sati*. People still speak of her courage : she wended her way with uncovered face from palace to the cremation place. In her honour, a fair is held in the month of *Bhadon* (August-September). The last cenotaph is that of Maharaja Sadul Singh. It is made of marble of various colours and is of modern style completely different from the rest.

Near the tank is a small palace built for the convenience of the royal family when they are required to attend ceremonies at Devi Kund. Because of a water reservoir, Devi kund is sometimes used as a picnic spot in rainy season.

Gajner

At height of 233 metres, the village is situated between 27° 57' latitude and 73° 03' longitude in the south-west of Bikaner city at a distance of 32 km. by road and 35 km. by train. It is famous for the beauty of the lake and palace where the members of the royal family took resort during summer. The palace is the personal property of the Maharaja. Gajner is perhaps the prettiest spot in the whole of the district. Some details of the lake have been given earlier. Its bank on one side is green and wooded, while the other side is covered by the imposing palace and garden watered from the lake. Imperial sand-grouse in the course of their far-off journey from southern Siberia perch on the shores of this picturesque lake which has acquired renown as a place for sand-grouse shooting. Wild bores, black bucks and chinkaras are also available on the banks of the lake. The site presents exhilarating spectacle in the spring.

The village of Gajner is said to have been founded by Maharaja Gaj Singh. It is situated in a depression and the whole place was submerged in the floods that occurred in the year 1933 A.D. There is a police station, post office and a dispensary in the village. Telephone facilities are also available. According to the Census of 1961 the population of village including that of the palace was 1415.

Jānglu

Situated in the south of Bikaner at a distance of 40 km. a small village known as Jānglu is of some historical significance. It is

said that the village was founded by the Rani Ajai Devi of Samrat (Emperor) Prithvi Raj Chauhan. A small fort was built by Sankhla, the ruins of which can still be seen. To this place belonged one Nao Sankhla whose help and sagacious counsel was of great significance in the establishment of the Rathor kingdom in this region. Before Bikaner was founded, Rao Bika lived here for ten years and converted it into a flourishing place. The village is situated at a distance of 24 km. west of Bikaner. It is a small village with a tank and a temple. It is known as **Koramdesar**.

Koramdesar is a small village situated at a distance of 24 km. west of the city of Bikaner. There is a small tank on the banks of which is built a temple of Bhairunji. Here also Rao Bika had dwelt for nearly three years before establishment of his capital at Bikaner. He set up the image of Bhairunji, he brought with him from Mandout, on the embankment of tank. Bika also constructed a small fort here which is in ruins now.

The place is connected by a metalled road and is electrified. On one bank of the tank is a small palace with a small garden. It has now been converted into a hotel and caters to the needs of the tourists. There are also three dharamshalas for the pilgrims coming to the temple.

Kolayat

Kolayat village is situated between 27°50' latitude and 73°52' longitude. It is 51 km. south-west of Bikaner known far and wide for the holiness of its tank. The place is considered to be one of the most sacred places not only in this part of the country but throughout India. Worshippers come even from such distant places as Nepal. The central feature of the place is a tank with a temple of Kapil Muni regarded as the originator of the Sankhya system of Indian philosophy. An annual fair from Kartik Sudi 13 to Agrahan vadi 1 is held to commemorate his visit to the place which is believed to have been hallowed by his feet. Many other temples have also been built and several bathing ghats, separate for men and women, and shaded by Peepal, Neem and Khejra trees adorn the banks of the tank. Many people visit Kolayat round the year to gain religious merit and some during rains for picnic and pleasure.

The place is approachable both by rail (50 km.) and metalled road 51 km. from Bikaner. It is the headquarters of the tahsil as also

of the panchayat samiti. The village is electrified and recently water-works has been commissioned. There are a number of dharamshalas (rent free rest houses) which can accommodate hundreds of persons at a time. Besides, there is office of Public Works Department, rest house, a secondary school, a primary school, a primary health centre and a police outpost; post, telegraph, telephone and banking facilities are also available. Heavy floods came in the area in samvat 1990 (1933 A.D.) which washed away the palace and on its site now stands the tahsil building. The population of the village was 834 according to the Census taken in 1961.

Lunkaransar

It is the headquarters of the northern most tahsil and panchayat samiti of the same name. The village takes its name from Rao Lunkaran, the third ruler of the State, and is about 68 km. by road in north-east of Bikaner. Distance from Bikaner by train is 81 km. According to the Census of 1961, the population of the village was of the order of 2,791. There being no sweet water available even today, drinking water has to be supplied by train from Bikaner. There is a higher secondary school, a girls' middle school, a police station and a dispensary. Post and telegraph facilities are also available here.

Mokam

At a distance of 16 kilometres from Naukha, there lies a small village known as Mokam, the sacred place of the Bishnoi community where the earthly remains of the celebrated Jambheshwarji, founder of the sect, lie deposited. The village has been in existence for more than five centuries. Twice a year a fair is held in commemoration of Jambheshwarji; the main fair is on Phalgun Krishna 15 which is attended by more than 12,000 persons coming from all parts of the country; and the subsidiary fair on Aswin Krishna 14 to Amavasya attended by nearly 4,000 persons. The village has four dharamshalas and a middle school.

Napasar

It is a village with a population of 6,634 souls situated in the south-east of Bikaner city at a distance of about 28 km. by road and lies on the Delhi-Bikaner branch of the northern railway. It lies between 27°58' latitude and 73°33' longitude. The place is famous for the manufacture of woollen blankets and *lois*, and though on a very small scale is humming with industrial activity. The village comes under the jurisdiction

of the gram panchayat and all civic amenities are looked after by it. It has a primary health centre, a higher secondary school, and a police station. Wells are the main source of water supply though piped water is also made available through waterworks managed by the gram panchayat. Electric facility is also available inside the town. Post, telephone and telegraph facilities are also available. There are four *dharamshalas* in the village.

Naukha

Naukha is a prosperous *mandi*. It is situated between 27°35' latitude and 73°26' longitude. It is at a distance of 60 km. by road and 65 km. by rail from Bikaner. The town has a municipality, a secondary school, a primary health centre and three *dharamshalas* and enjoys banking, telephone and telegraph facilities. It has population of 7,740 persons according to 1961 census.

Pūgal

Pūgal is situated in the west of the district between 28°31' latitude and 72°49' longitude. It is 80 km. from Bikaner and is a place of some historical importance. It is one of the oldest villages of this region and is said to have been taken by the Bhatias from the Parmaras in the middle of the ninth century. When Rao Bika invaded this area nearly five hundred years ago, he took to wife the daughter of Shekha of Pūgal, and several of his successors also married in the same family. Elphinstone passed through this tract on his way to Kābul in 1808 A.D. and described it as "a sea of sand without a sign of vegetation". A few temples also exist there which belong to Bhati community. The place is famous for its milch cows and plough-bullocks. According to the Census of 1961, the population of the village was 963. The village is connected with Bikaner by bituminised road.

Sheo Bāri

About half way between Devi Kund and the city of Bikaner but at some distance to the south of the road, lies the village known as Sheo Bāri. The place is known for its finely built modern temple dedicated to Lord Shiva. A fair is also held here in the month of *Savan* every year. The village has a population of 2,537 according to the census of 1961.

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GLOSSARY

<i>Abadi</i>	Habitation
<i>Ahimsa</i>	Non-violence
<i>Asami</i>	Client
<i>Betalab</i>	Without a pond
<i>Bhairun</i>	A Hindu deity
<i>Bhajan</i>	Hymn
<i>Bidi</i>	Indian crude form of cigarette, tobacco rolled in leaves
<i>Bora</i>	A gunny bag
<i>Chak</i>	A territorial division of (agricultural) land in rural areas
<i>Charkha</i>	A spinning wheel
<i>Chkach</i>	Butter-milk
<i>Chhipas</i>	Printers of cloth
<i>Chhutbhai</i>	Among Rajputs, sons, generally Cadet, not ascending the gadi
<i>Dal</i>	Pulse
<i>Dam</i>	A coin of medieval period
<i>Danedar</i>	Granular
<i>Dharm da</i>	Endowment
<i>Dharmashala</i>	A house for pilgrims; an inn built out of philanthropy
<i>Faujkharch</i>	Military expenses, also a tax
<i>Ghani</i>	An indigenous contrivance for crushing oilseeds
<i>Gotra</i>	Clan
<i>Gram</i>	Village
<i>Gramsabha</i>	Village council
<i>Guru</i>	Teacher
<i>Halka</i>	Jurisdiction
<i>Hat</i>	A mart; market place
<i>Havildar</i>	Police official
<i>Ilaga</i>	Area
<i>Khadi</i>	Hand spun and hand woven cloth
<i>Khalsa Village</i>	Land directly managed by the State; crown land
<i>Khatedar</i>	Tenants on agricultural land enjoying occupancy rights

<i>Khejra</i>	<i>Prosopis Spicigera</i>
<i>Khillat</i>	A robe of honour or other ceremonial present
<i>Kirana</i>	Grocery
<i>Kirtan</i>	Recitation accompanied by music
<i>Kisan</i>	Farmer, Cultivator, tiller of the land
<i>Kotwal</i>	Police officer
<i>Krishi Nipun</i>	Expert in agriculture
<i>Kuppi</i>	A flask to hold oil or ghee
<i>Lambardar</i>	A revenue official
<i>Lohar</i>	Iron-smith
<i>Mahal</i>	A revenue jurisdiction during the Mughal period
<i>Maharani</i>	Queen
<i>Maktaba</i>	Urdu school
<i>Mistri</i>	A craftsman
<i>Mukhtyar</i>	An attorney
<i>Naka</i>	An outpost
<i>Namda</i>	A kind of woollen blanket
<i>Namaz</i>	Muslim prayer
<i>Nazim</i>	Revenue official
<i>Nazr</i>	A present or offering from an inferior to a superior
<i>Nigaranidar</i>	Supervisor
<i>Niwar</i>	Wide and compact cotton tape used in weaving a bedstead
<i>Panghat</i>	Place from where water is drawn
<i>Papad</i>	Wafer
<i>Parda</i>	Veil
<i>Pargana</i>	A revenue area
<i>Pathshala</i>	School
<i>Pattedar</i>	Land owner
<i>Peepal</i>	The bo-tree, same as pipal
<i>Quazi</i>	Mohammedan judge; an official associated in a Muslim marriage
<i>Raj</i>	The Government
<i>Rasgulla</i>	A typical round and spongy Bengali sweet
<i>Rath</i>	Chariot
<i>Sagai</i>	Betrothal
<i>Sapind</i>	Collateral
<i>Samadhi</i>	Cenotaph
<i>Sanad</i>	Grant or authority

<i>Shradha</i>	A propitiatory rite performed for the dead
<i>Sirkar</i>	A division of the territory during Mughal period
<i>Sowar</i>	Rider
<i>Subah</i>	A province
<i>Talao</i>	Pond, tank
<i>Thakur</i>	Chief
<i>Thana</i>	Military outpost, also police station
<i>Thathera</i>	A tinker
<i>Thikana</i>	A chiefship, an estate
<i>Tonga</i>	A horse driven carriage
<i>Tulsi</i>	Holy basil or <i>Ocimum Sanctum</i> , Linn
<i>Vakil</i>	Pleader
<i>Yajna</i>	An ancient Hindu institution of religious sacrifice and oblation

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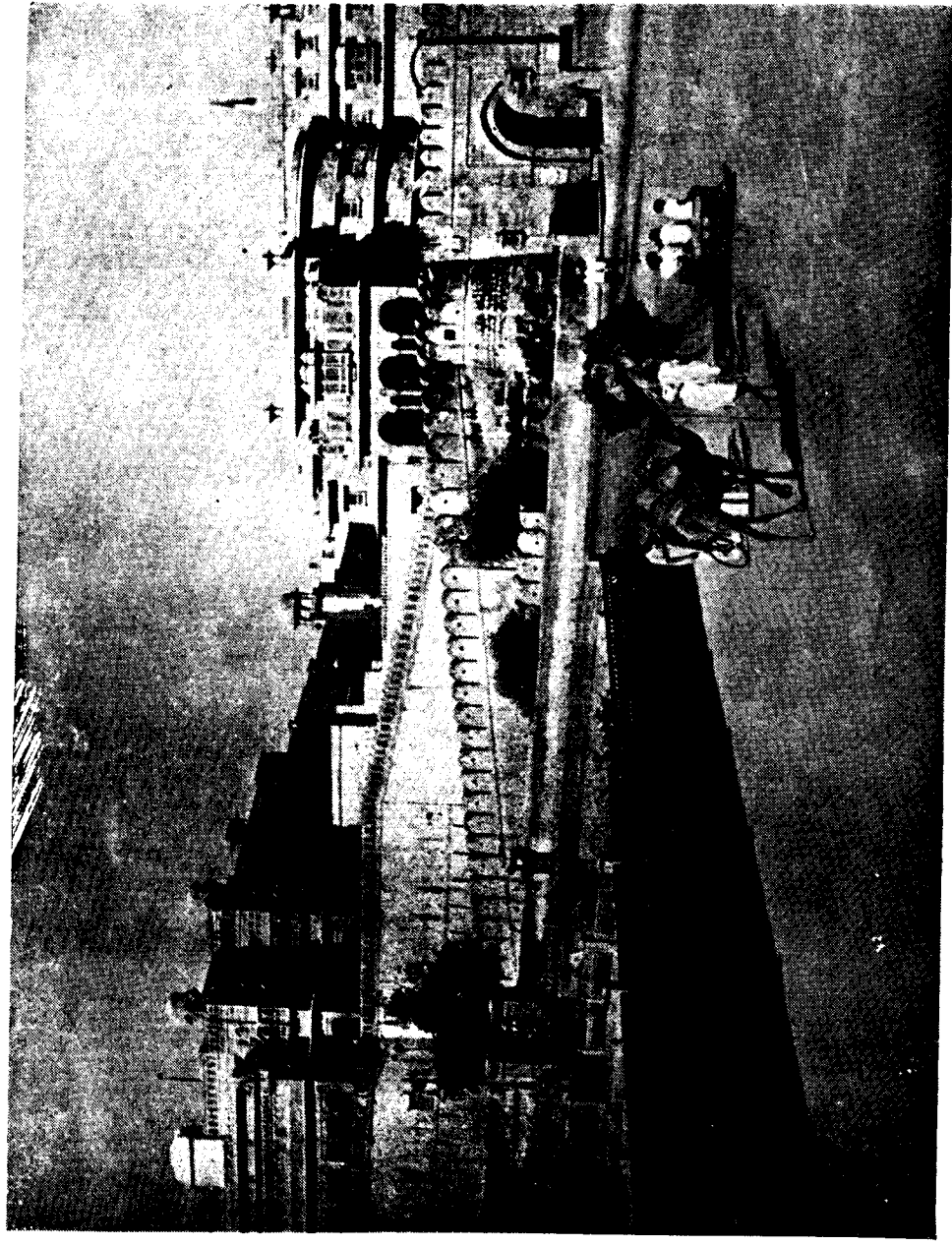
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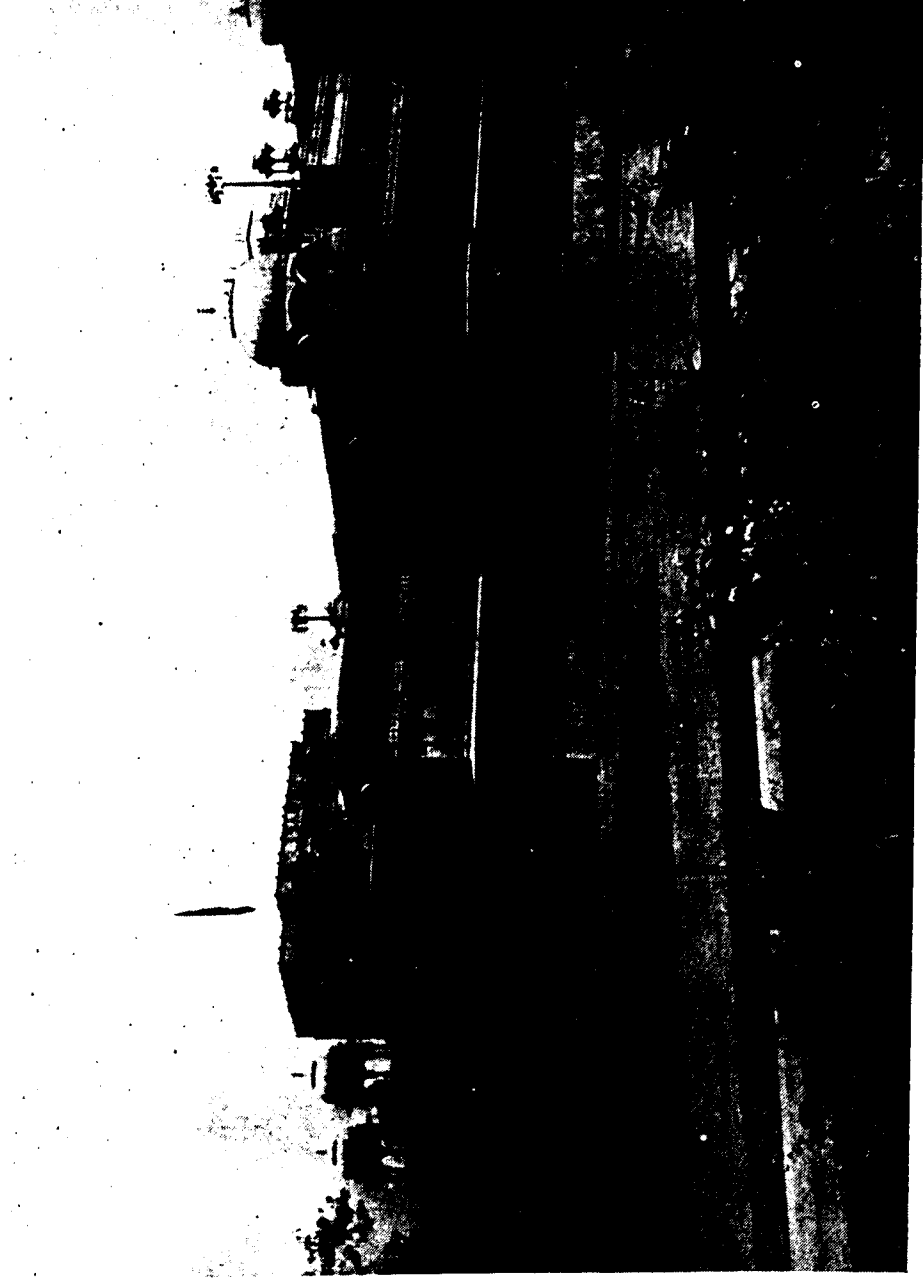
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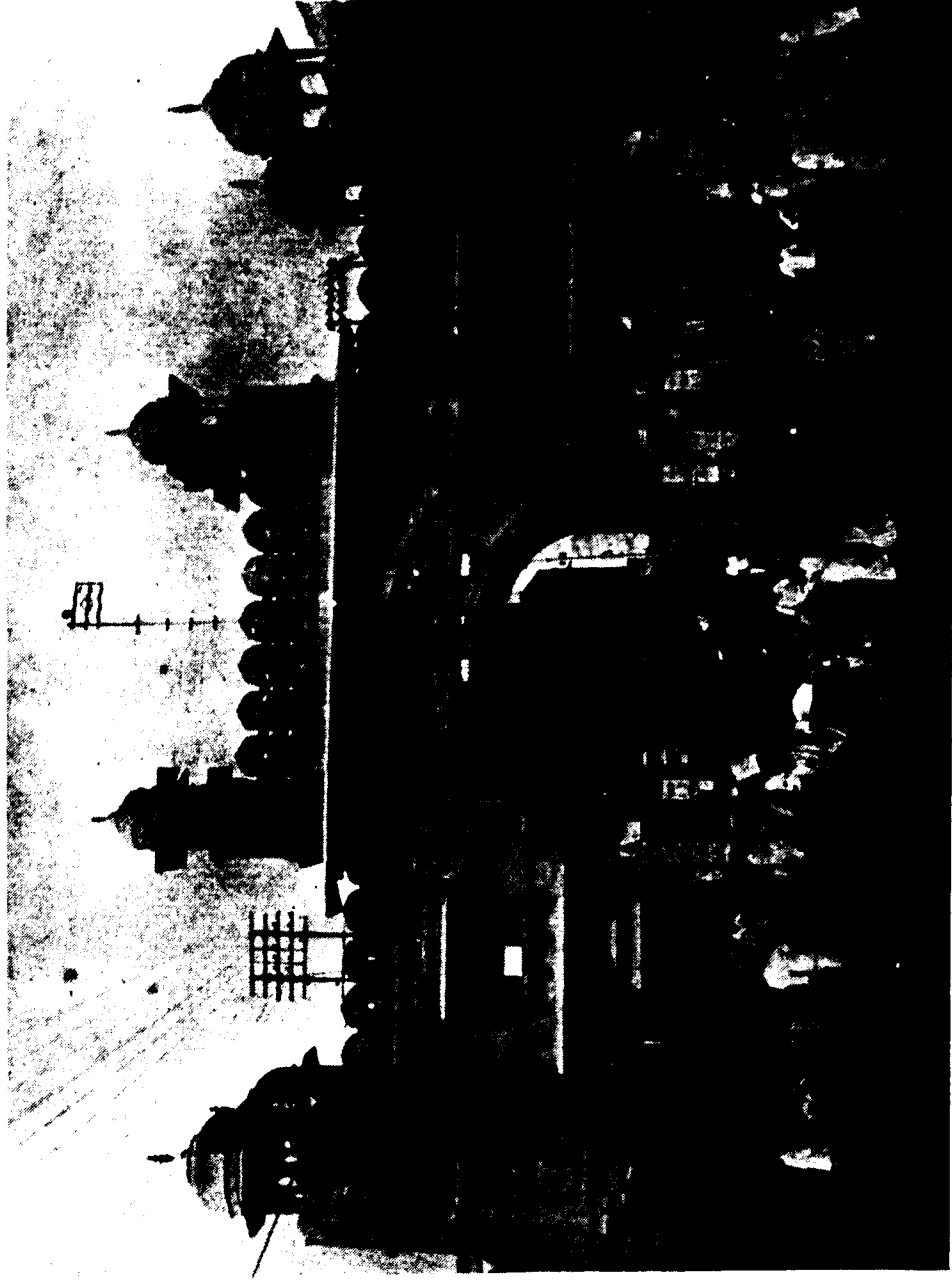
The Fort of Bikaner



Gajner Palace



Lalgarh Palace



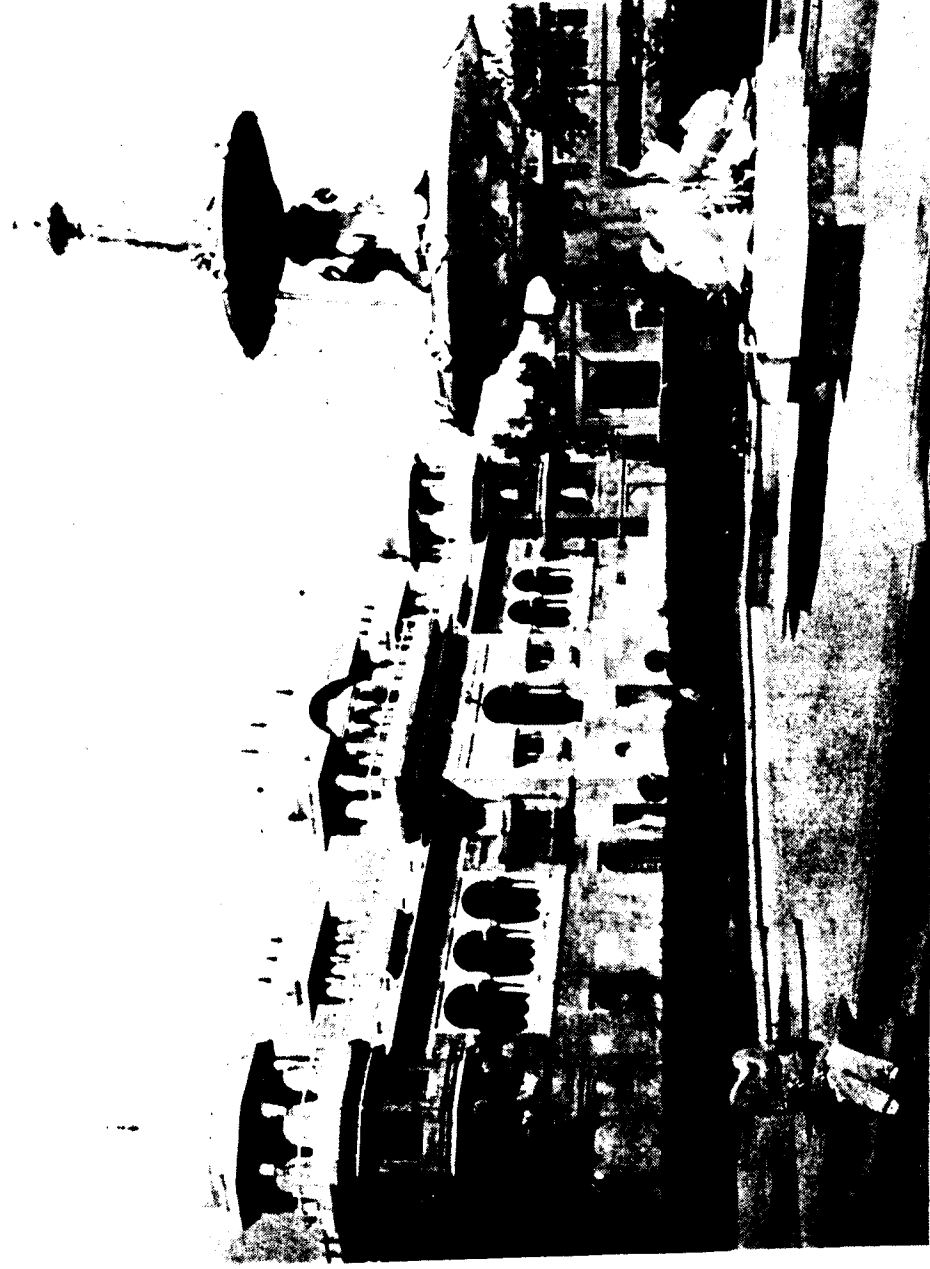
Kote Gate—Bikaner



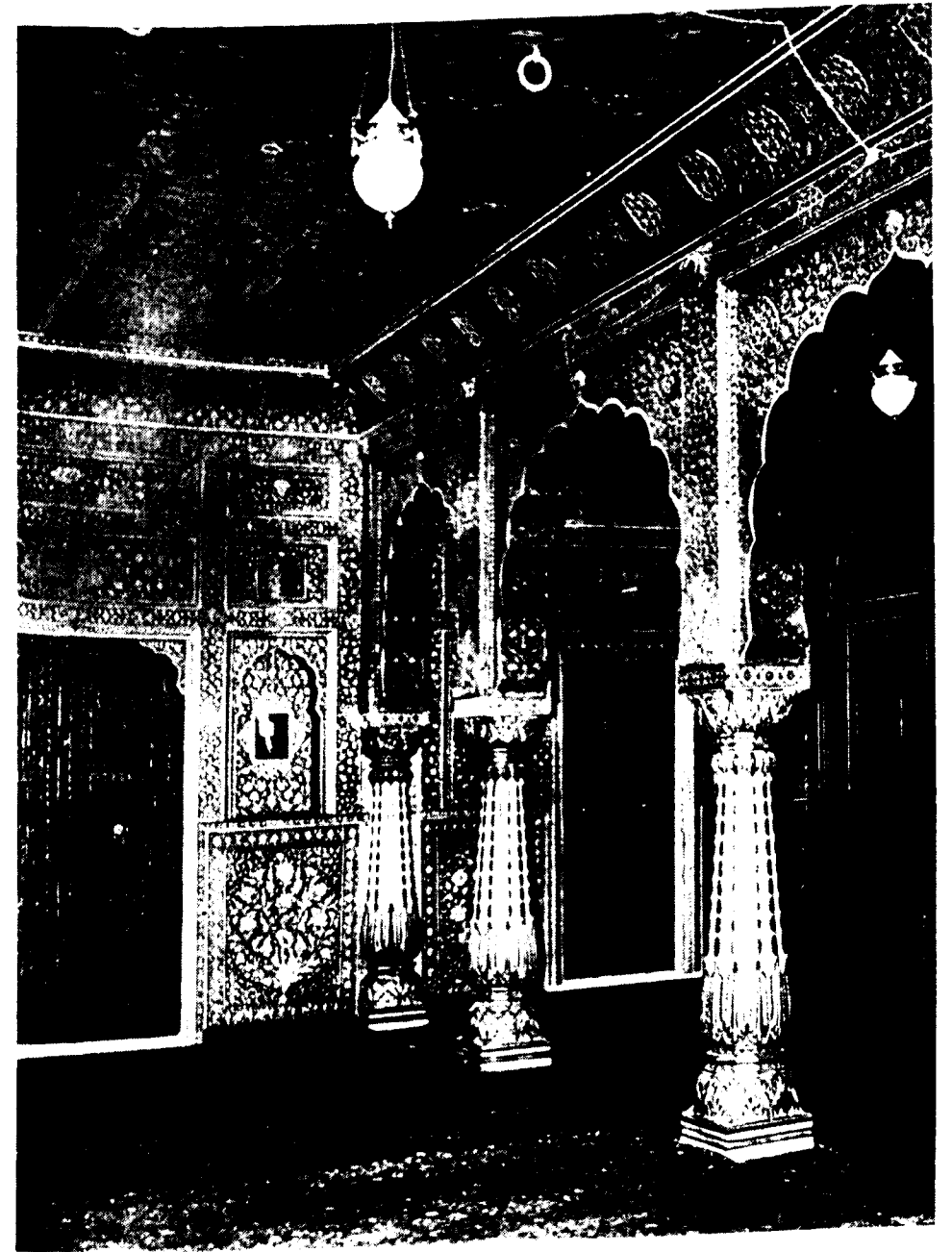
Karni Mata's Mandir—Deshnoke



A Sacred Tank — Kolayat



Ratan Bihariji Temple—Bikaner



Anup Mahal—Bikaner Fort



One of the Mansions of Brainer