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GAZETTEER OF INDIA
RAJASTHAN
GANGANAGAR

RAJASTHAN DISTRICT GAZETTEERS

GANGANAGAR

By

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DIRECTORATE, DISTRICT GAZETTEERS,
GOVERNMENT OF RAJASTHAN,
JAIPUR.

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PREFACE

In the series of District Gazetteers published by the Government of Rajasthan, this is the eleventh volume. The area now comprising the district of Ganganagar formed a part of the erstwhile State of Bikaner before the integration of the princely states. The first Gazetteer of the Bikaner State, written by Captain P. W. Powlett, was published in 1874. Erskine's Gazetteer of Western Rajputana 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 Gazetteers of India and its provincial series. These Gazetteers were published by a colonial power keeping in view the requirements of its administrators and political officers. Their scope was, therefore, limited and they contained only such information as was useful to a foreign government in the governance of a subject people. More than half-a-century has elapsed since the publication of these works and the country has witnessed significant and stupendous changes in social, economic and political spheres during this period, particularly in the post-Independence era. In this context these publications, though a valuable source material for the researchers, have become out-of-date. The revision of the old Gazetteers was, therefore, taken up as a national project with a view to providing them a re-oriented concept. Under the new scheme the Gazetteers depict, more conspicuously, the life of the common man, his urges and aspirations. By mirroring the emerging democratic, secular and socialistic pattern of life in the country, these unique series help to dispel prejudices and parochial tendencies and strengthen the forces of national and emotional integration.

Ganganagar occupies an important place among the districts of Rajasthan. Recent researches have thrown light on its rich historical past. In the ancient times, two rivers, hallowed in Vedic hymns, namely, Saraswati (modern Ghaggar—the Hakra) and Drishadvati, flowed through this territory. Excavations undertaken at Kali Banga and Rang Mahal etc. situated on the banks of the dry-beds of these rivers, have proved that the Indus Valley civilisation had extended up to this place and it was inhabited by the people-akin to those who had flourished at Mohanjo-Daro and

Harappa. The rivers, however, dried up in course of time and as a resul of this natural calamity the region became inhospitable and desolate. For some centuries the area remained the craddle of the Yaudheyas, who were divided into a number of republican tribes. During the medieval times the historic fort of Bhatner (present Hanumangarh) was known for its strength and strategic position. Emperor Timur, who sacked it in 1391, wrote in his memoirs that the fort of Bhatner was one of the most renowned fortresses of India and its Raja was an important person famous throughout the country. Fifteenth century witnessed the rise of the Rathor principality of Bikaner and the territory came under its sway. For centuries, however, this part of the State remained barren and uninviting. It was only after the advent of the Gang Canal in the present century that this ancient land witnessed a mighty transformation. Its sandy wastes were converted into rich agricultural lands producing variety of crops and thereby heralding a new era of prosperity in the district. This process has been further accelerated after the construction of Bhakhra and Rajasthan Canals and the district has thus become the granary of Rajasthan. The progressive peasantry of Ganganagar is much ahead than its counterpart in the rest of the State in adopting new techniques of agriculture. The prosperous countryside of Ganganagar, a rare phenomenon in the country, provides a refreshing change to those who are acquainted with the appalling conditions of our villages elsewhere. The present volume, therefore, depicts the picture of a new India—the India of tomorrow.

The material available in the old Gazetteers has been used freely particularly in chapters dealing with subjects like topography, rivers, geology etc. 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. The climatological summary incorporated in chapter I has been prepared by the Meteorological Department, Government of India.

Various departments of the State and Central Governments, Semi-Government institutions, voluntary organisations and individuals have helped us by making the necessary material available. They deserve our thanks. I will be failing in my duty if I do not gratefully acknowledge the help given by the Central Gazetteers Unit, Ministry of Education and Youth Services, Government of India, New Delhi. Undoubtedly I received most valuable suggestions from them for the improvement of the draft. I am particularly obliged to Dr. P. N. Chopra for the personal interest he

showed in the preparation of the District Gazetteer. I am indebted to Shri S. L. Khurana, the Chief Secretary, Government of Rajasthan for his continuous interest and guidance in the preparation of the District Gazetteers which has enabled us to organise the Gazetteers' work on a systematic basis.

I also place on record my appreciation of the officers and the staff of the Directorate of District Gazetteers, who have done useful team work in the compilation of this volume.

K. K. SEHGAL

DIRECTOR, DISTRICT GAZETTEERS,
RAJASTHAN, JAIPUR.

GAZETTEER OF GANGANAGAR 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° Fahrenheit=9/5 (T° centigrade) 0+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 Name

Ganganagar district is named after its headquarters which itself is named after Maharaja Ganga Singh (1887 to 1943), the ruler of the former Bikaner State, whose indefatigable and ceaseless efforts resulted in the Gang Canal being brought to the thirsty and arid lands of this district. Previously it was also known as Sri Ganganagar and is sometimes still called as such.

Location, Area and Population

This district lies in the northern most region of Rajasthan and forms a part of Indo-Gangetic Plain. It is located between 28°-4′ and 30°-6′ North Latitudes and between 72°-30′ and 75°-30′ East Longitudes and is bounded on the south by the districts of Churu and Bikaner of Rajasthan State, on the north-east by the Punjab and Haryana States and on the north and west, by Bahawalpur district of Pakistan.

The total area of the district as on 1.1.1966 according to the Central Statistical Organisation was 20,696 sq. km. According to 1961 Census, it inhabits a population of 10,37,423 (urban 1,49,952 and rural 8,87,471) and ranks fifth both in size and population among the districts of the State. Its density of population is 51 per sq. km. or 130 per sq. mile. The males number 5,63,231 and the females 4,74,192. Ratio of females per thousand males is 842. The population of the district has increased by 64.64 per cent between 1951-1961.

History of the district as an administrative unit

The area comprising the present Ganganagar district has been a part of the erstwhile Bikaner State of former Rajputana; but as it is constituted today, its boundaries were demarcated only after the advent of the Gang Canal in the area in 1927.

Historically speaking this district comprised the areas included in former fiscal divisions of Bikaner State, north and north-east, consisting of parganas viz., Anupgarh, Sardargarh, Suratgarh, Hanumangarh, Tibi, Nohar and Bhadra.[1] Report on the administration of the Bikaner State for 1893–94 reveals that the present area of Ganganagar district was included in the two revenue divisions (*Nizamats*) of Reni and Suratgarh. After completion of Gang Canal, the State was administratively carved out into two divisions viz., Sadar and Ganganagar, both comprising five districts and each district being in charge of a *Nazim*. These districts were sub-divided into tahsils and sub-tahsils, the number of the tahsils being fifteen and the sub-tahsils four. Except for occasional minor changes in regard to the boundaries of the divisions and the arrangements made for their administration no important change was introduced.

Prior to the formation of Rajasthan, area comprised in the present Ganganagar district was split up into two districts namely Ganganagar and Hanumangarh with headquarters at places bearing the same name. The following were the sub-divisions and tahsils in each of the above districts :

S No.	Name of district		Name of sub-division		Name of tahsil
1.	Ganganagar	1.	Ganganagar	1.	Ganganagar
				2.	Karanpur
		2.	Raisinghnagar	1.	Raisinghnagar
				2.	Padampur
				3.	Anupgarh
2.	Hanumangarh	1.	Suratgarh	1.	Suratgarh
				2.	Hanumangarh
		2.	Nohar	1.	Nohar
				2.	Bhadra

After the formation of Rajasthan in March, 1948, Hanumangarh district was merged in the Ganganagar district and the combined territory was placed under the administrative control of the District Collector. This administrative set up still continues.

Sub-divisions and Tahsils

Ganganagar district is now sub-divided into five sub-divisions viz., Ganganagar, Karanpur, Raisinghnagar, Hanumangarh and Nohar.

1. Powlett, *Gazetteer of Bikaner State*, reprint (1935) pp. 121, 122 & 123.

A Sub-Divisional Officer is incharge of each sub-division. These five sub-divisions are further divided into nine tahsils. The following table gives the names, number of cities, towns and villages and population of each of them :

S. No.	Sub-divisions	Tahsils	Number of Cities and Towns (1961)	Villages[1]	Population
1.	Ganganagar	Ganganagar	1	253	204,528
2.	Hanumangarh	Hanumangarh	2	160	203,131
		Suratgarh	1	124	87,097
3.	Karanpur	Karanpur	1	169	99,513
		Padampur	1	206	89,402
4.	Nohar	Bhadra	1	107	95,141
		Nohar	1	150	123,643
5.	Raisinghnagar	Anupgarh	1	150	48,503
		Raisinghnagar	1	219	86,465
Total	5	9	10	1,538	10,37,423

Hanumangarh sub-division evidently covers the largest area and inhabits the highest population in the district. In July, 1965, its tahsil Hanumangarh was bifurcated into three additional tahsils viz., Sangaria, Tibi and Sadulshahr, thus raising the total number of tahsils from nine to twelve[2].

Towns

In 1961 Census, only ten towns were listed. Their names, location and population are as below[3] :

S. No.	Name of the town	Latitude	Longitude	Population
1.	Anupgarh	29°–11′	73°–12′	2,294
2.	Bhadra	29°–06′	75°–10′	10,000
3.	Ganganagar	29°–55′	73°–52′	63,854
4.	Gajsinghpur	29°–39½′	73°–26½′	4,681
5.	Hanumangarh	29°–35′	74°–20′	17,909
6.	Karanpur	29°–50′	73°–28′	11,551
7.	Nohar	29°–11′	74°–47′	13,728
8.	Raisinghnagar	29°–32′	73°–27′	9,493
9.	Sangaria	29°–47½′	74°–28′	8,112
10.	Suratgarh	29°–18′	73°–54′	8,330

1. Number of villages includes only inhabited villages.
2. The Government of Rajasthan Notification No. F. 7 (58)/REV (D) GrII/61 dated the 31st July, 1965.
3. Detailed description of the towns is given in the chapter, Places of Interest.

TOPOGRAPHY

Natural Divisions

The map of Rajasthan is an irregular rhombus. The Aravalli Hills intersect it into north-east and south-west. Thus the State as a whole, can be divided into two main divisions, north-east and south-west of the Aravalli Hills. The former is sandy, ill watered and unproductive area from the natural point of view.

Ganganagar district falls under this division but the irrigational facilities provided by Gang Canal have made most of it bristle with ripening blades of corn. But still a large portion of the area remains arid, dreary and full of sand dunes.

The district can be divided into three natural regions:

(i) Northern half or canalised area.

(ii) South-eastern or sandy and semi-canalised area.

(iii) South-western or desert area.

The area which is either semi-canalised or non-irrigated can also become fully fertile provided proper irrigational facilities are created. It becomes a vast green pasture land covered with rich succulent grasses during the rains. With the completion of Rajasthan Canal the face of this tract will considerably change.

Territorially the district comprises five sub-divisions, twelve tahsils and ten towns. The sub-divisions of Ganganagar and Karanpur form its northern most part. Raisinghnagar is situated in the south-west while Hanumangarh and Nohar sub-divisions are situated on its eastern side. The soil in the entire district is generally sandy.

Hills

There are no important hills in the area. Ridges on the banks of the ancient dried up rivers Saraswati and Drishadvati rise above the ground level with their heights varying from twenty to a hundred feet and attaining at places considerable height. It is evident from their coverage of wild shrubbery that they represent the banks of the rivers and are not formed by drifting sands. They are higher in the west than in the east. The northern portion of the district is better wooded in comparison to the southern and south-eastern portion.

Plateau and plane

There is no plateau in the district as the area constitutes a desert and is generally plane except for the sand dunes placed as it were, on its chest

The height of the district varies between 168 to 227 metres above the mean sea level. The direction of drainage is from east to west and its drainage is provided in the bed of the old Ghaggar river now locally known as *Nali*. The tract slopes from north to south.

Desert

The whole of this region one time formed a part of the great Indian Desert of Thar, but thanks to the advent of Gang Canal and introduction of other irrigational facilities, the north-eastern portion of the area has been reclaimed for intensive agricultural production. Consequently, Ganganagar to-day bears the proud title of being the granary of Rajasthan. The south-western portion of the district, however, is still covered with sand.

RIVER SYSTEM AND WATER RESOURCES

No perennial river exists in the district now but in the past, Ghaggar river used to flow through it, entering the area at Talwara and passing out to Bahawalpur, now in Pakistan, near village Binjore to join river Sutluj. A tributary of this river known as Narwal, flowing from the north of the district, used to join it at Anupgarh. This was so probably upto the end of the 19th century when the annual rainfall was heavy and the course of the river had not been diverted at its upper reaches. Narwal is now there no more and its place has been taken by the present Gang Canal System.

In olden times the great *Vedic* river Saraswati used to flow through this district. Rising in the sub-mountaneous region of Ambala district, the river Saraswati pursued its feeble course in parts of Kurukshetra and Pehoa, ancient towns of the Haryana. It joined the Ghaggar, a more northern stream, at a place near Shatrana in the Punjab. Thereafter the combined river, now known as Ghaggar, flew in a south-west direction and entered in Ganganagar district at Talwara. By now, or even in its earlier reaches it has ceased to be a stream. During the rains, however, the flood water reaches more south-westernly points to the ancient channel. The dried up bed of this river, clear traces of which are visible in the district, runs in a westernly direction till it reaches the town of Hanumangarh. The approximate length of Ghaggar river running through the

district is about 177.02 km. or 110 miles and from its origin to Indo-Pak border it is about 514.99 km. or 320 miles. Due to change in water shed, the course of river Ghaggar has dried up and limited volume of water running on its course, has given it a local name *Nali*. The important villages and towns situated on its bank are Talwara, Surewala, Sherekan, Hanumangarh, Pilibangan, Suratgarh, Jaitsar, Sri Bijainagar and Anupgarh. The soil of the river basin is very fertile and the sub-soil water is sweet.

Passing by south-east of Hanumangarh, the river bed, marked by sand ridges on both sides reaches the tahsil headquarters of Suratgarh where it is joined from the east, by another dried up stream, the ancient Drishadvati, which arose in the sub-mountaineous region of the Himalayas. Its dried up bed in the district, can be traced through Bhadra, Nohar and Rawatsar whereafter it meets ancient Saraswati at a place about 4.82 km. or three miles north of Suratgarh.

Ghaggar Floods

Prior to the year 1955, Ghaggar was almost a dead river in Rajasthan, as the floods witnessed in the monsoon season were low and short lived. These were of great benefit because the inundated areas soon after drying up, were able to produce bumper *Rabi* crops. The Ghaggar waters had never reached beyond Suratgarh during recent memory. The monsoons of 1959, however, witnessed a very heavy discharge of water in this river with the result that it had reached beyond Anupgarh, submerging an area of about 40,469 hectares (one lac acre). Since then it has become a regular feature every year during the rainy season. These high floods can be attributed to several causes. Government has constructed many kilometres of guided embankment in the Haryana territory by cutting off major part of the areas where water used to spread Extensive irrigational facilities from Bhakra Canal System have reduced the flood absorbing capacity of the Ghaggar catchment and has raised sub-soil water level thus increasing the percentage run off from the catchment. The Government of Haryana has also recently diverted a number of drains towards Rajasthan territory to mitigate a serious water logging problem there. In order to provide permanent relief from this *Nali* flood and also not to deprive the area of this flow and rich silt which it brings with its waters, a scheme costing about Rs. 5 crore, has been taken in hand by the State Government to divert the extra discharge and carry it through a canal to the south of Suratgarh to be left there in the high sand dunes. It is proposed to canalise the whole discharge from the border upto village Masani. Some side canals are still to be constructed to feed the area near north and south

Ghaggar Canal. Separate Ghaggar flood control offices have been established in the district. The actual expenditure booked was Rs. 233 lakhs on Ghaggar flood control works by the end of the year 1965-66.

Lakes and Tanks

No natural lakes and tanks exist in the district except one artificial lake known as Talwara Jhil. It has come into being by formation of a depression in the bed of river Ghaggar where water stands accumulated. It lies in Hanumangarh tahsil and is of a small size. No irrigation is possible from it as water is retained only for a few months. There is another tank known as Budha Johar at Dabla in which the escaped water from the tail of Gang Canal accumulates but here too irrigation is not possible because of its limited water capacity.

There are no natural springs in the district as it is a desert area with no hills.

Underground water resources

There is no well irrigation in this district nor are tanks or lakes utilised for this purpose. Well water at most places is brackish but the tract is interspersed here and there with wells which have sweet and salubrious water, rendered so through percolation. Water column often dries up in summer and at some places drinking water supply is supplemented from *Johars* or Ponds where water collected in the rainy season is used for drinking by animals and human beings both. When rainfall is good water in the ponds lasts for sufficiently long period, when it is deficient, unless there are sweet wells in the villages, the villagers have to fetch drinking water on camels from distant places. There is a big *Johar*, at Suratgarh proper, which is locally known as *Dhab*, which supplies water for the use of both, human beings and animals. Water from numerous *Kacha Johars* (ponds) is also used for drinking purposes.

No underground water survey has been conducted so far in this district. The underground water throughout the tract is impregnated with salts. Both chlorides and sulphates, are found in the well water which generally contains total dissolved solids in excess of 1,000 parts per million. The presence of salinity in the ground water is general and an accepted fact. Wells are very deep. The water level has been indicated by the tube wells drilled in this area, which varies from 15.24 to 30.48 metres or 50 to 150 feet, depending upon the hydrological conditions. The water is generally sweet with sand stone strata and brackish with clay formations. Organised efforts to detect abnormal potentiality of ground water have

never been made in the district. It is expected that through detailed hydrological studies and surveys, potential source of underground water may be found in some localities. In parts of Ganganagar and Bikaner, where indications for the existence of ground water are available, efforts have to be made to investigate and develop those regions. More intensive investigations are necessary to locate possible ground water sources. It has been suggested that Electromagnetic and Seismic methods should be used to obtain indications of water existence below the surface.

According to tradition as stated by Tod, this region was not always arid or desolate[1]. It is surmised that the river Hakra flowed through the heart of this district. Tod was of the opinion that this desert area was once fertile and populous, but now, as irony of fate would have it, water is scarce and available only 100 to 150 feet below the surface. The district which was once submerged in water, now presents only a vista of dry and arid sands.

GEOLOGY

Geological antiquity

District Ganganagar was covered largely by a sea during the Jurassic, Cretaceous and Eocene ages. It has not been properly ascertained when this area was uplifted into dry land but it may have been some time in the upper tertiary. Even then some large lakes and lagoons might have been left over which gradually dried up. It is confidently asserted that it was only after the Pleistocene, the last glacial period that this district began to get gradually dry. Occurrences of Jurassic rocks consisting of limestone and shale are known in the district.

The Eocene age is, however, well represented here. The strata belongs to the *Laki* division and consists of a thickness of white and buff limestones and shales with the characteristic fossils belonging to the *Genera Nummulities and Assilina*. The lignite of Palana near Bikaner and towards the south of Ganganagar, constitutes a projection of these formations.

The explosal geological formations of the district are classified as recent and are chiefly of alluvial and fluvial origin. Forming a part of the Great Indian desert known as *Thar*, this area was completely destitute of herbage and was sparsely wooded before the advent of the Gang Canal. The *Barani* portion of the tahsils of Nohar, Bhadra, Hanumangarh, Suratgarh, Anupgarh and Raisinghnagar generally, present a dreary and

1. Tod, James: *Annals and Antiquities of Rajasthan*, Vol. II, p. 152.

desolate appearance. The area is covered with blown sand probably driven up from the Runn of Kutch by the prevailing south-west winds, their force and direction determining height of the sand dunes.

Mines and Minerals

The district cannot be classified as rich in respect of mines and mineral deposits as Gypsum is the only major mineral occuring here. It is found near Suratgarh, Tolania, Kishanpura, Rangmahal, Biramsar, Nolakhi, Purabsar, Jarkha-ke-Tal and Nohar. This mineral is an important ingredient in the making of plaster of Paris, portland cement and fertiliser. It is exported to the fertiliser factory at Sindri run by the Fertiliser Corporation of India. It is also used in textile and building industries. Magnesium limestone is found in Bhadra tahsil. Brick earth which is a minor mineral is available in big pockets throughout the district. It is used in buildings, roads and for other constructional purposes. Sweet lime, called *Mitha Chuna*, is found in the vicinity of Suratgarh. Gravel and mud are found in most places in the area and when burnt, they are transformed into *Khari* or saltish lime.

Earthquakes and Tremors

Rajasthan, as a whole, is in a geological stable belt, earthquakes, therefore, are neither frequent nor severe in intensity in the State[1]. According to the Building Code prepared by the Indian Standards Institution, however, the district falls under Zone-II i.e. a seismic zone where earthquakes can cause slight damage. The history of the area shows that no earthquake of any significance has originated in the district in the past. A few severe tremors, however, having their origin in the Hindukush Region & Himalayan Fault Zone could have been felt with slight intensity from time to time.

FLORA

Ganganagar forms part of northern most portion of Rajasthan. Nearly whole of the area is sandy with sand hills besmearing it everywhere. Paucity of water here all the time has resulted in a very little vegetation. After the advent of the Gang Canal, a portion of the district beams with verdure and glistering fields but the major portion is still uncovered. The flora in the district will positively undergo a major transformation with the completion of Rajasthan Canal and increased irrigational facilities. At present the vegetation in the district which grows in a hot region can be divided into three main categories:

1. *Recommendations for Earthquake Resistant Design of Structures*, Indian Standards Institution, 1893-1962.

(i) The vegetation on sand dunes

It is sparse and xerophytic in nature consisting of Calligonum polygonoides (*Phog*) Aerna tomentosa (*Bui*), Calotropis procera (*Ak*), Acacia Jacquemontii (*Bawli*), Leptadenia spartium (*Khimp*), Crotalaria burhia (*Sinia*), Farsetia Jacquemontii (*Hiran Chabo*), Boerhavia Spp. (*Sata*), Trianthema Spp. (*Sata*), Tribulus Spp. (*Gokhru*), Euphorbia Spp. (*Dudhi*), Indigofera Spp. (*Bekario*), etc. These species sparsely cover only some of the undulating sand dunes either moving or stabilised in nature.

(ii) The vegetation on alluvium soil

The alluvium soil in the famous Ghaggar bed is also very sparsely strewn with vegetation, more so in compact low lying saline or alkaline patches which generally grow halophytes of the following species:

Cyperus rotundus	*Motha*
Chenopoduim Spp.	*Bathua*
Haloxylon recurvum	*Lani*
Haloxylon selicornis	*Lana*
Sueda fruiticosa	*Luni*
Salsola foetida	*Luni*
Tamarix articulata	*Farash*

In patches, however, where the soil is deep sandy loam, Prosopis spicigera (*Khejra*), Tecomella undulata (*Rohira*) trees are found growing scattered here and there mixed with Zizyphus Jujuba and Zizyphus nummularia (*Beri*) and Capparis aphylla (*Kair*), and most of the species of vegetation found on sand dunes.

(iii) The vegetation on irrigated land

After the introduction of canal irrigation Dalbergia sissoo (*Shisham* or *Talli*), Acacia arabica (*Babul* or *Kikar*), Saccharum munja (*Moonj*), and the weeds of cultivation are seen forming part of the landscape in that area.

On the basis of the above botanical divisions of the district, the following types of representative flora can be mentioned.

Beri-Beri (Zizyphus Jujuba & Z. Nummularia)

These trees provide the principal fruit of the desert and the leaves of the trees, locally called *Pala*, are an important source of fodder for goats and sheep

Kair (Capparis aphylla)

This is a thorny shrub which sometimes grows to the size of a tree. It has no leaves but flowers twice a year. Its tiny red flowers and raw fruit are used as vegetables and for making pickles respectively. The ripe fruit, termed *Dhalu*, is eaten also. The twigs serve as fodder for camels and goats.

Khejra (Prosopis spicigera)

This was the only important tree worth mentioning before the advent of the Gang Canal in the district and it still plays an important role in the scheme of afforestation. Its leaves and shoots are used as fodder for camels, cattle and goats. The roots of *Khejra* are sunk very deep thereby enabling it to withstand the strong wind. When felled, its wood is used as fuel and for making rough and ordinary furniture. The pods of this tree, locally named as *Sangri*, is perhaps the only vegetable eaten in the desert area In addition, its bark is stripped off in years of famine and grounded with grain by the local people to add bulk to their meagre meal.

Rohira (Tecomella undulata)

This is the most important tree which provides timber for doors, windows and furniture. It cannot withstand moisture, but in the desert this is scarcely a problem.

Shisham (Dalbergia sissoo)

These trees have been mainly planted on the banks of Gang Canal and have since then multiplied considerably. Irrigation Department has also planted them in the compounds of Government rest houses situated on the canal banks. Large scale plantation along canal banks, road sides and in small blocks by the Forest Department will cater to the needs of the district for fuel and timber to some extent and it is hoped that it will soon be possible to meet the growing local demand of timber and fuel almost entirely from the local produce of *Shisham*. It has also become an important source of revenue to the State Government.

Other important plants commonly found in the area, are *Akra* (Colotropis procera), *Peepal*, *Neem* (Azadirachta indica), *Babul* or *Kikar* (Acacia arabica), *Saresh* and *Thal* (Salvadora oleoides) etc.

Of bushes, the most common is the *Phog* (Calligonum polygonoides). Growing on a sandy ground its twigs and roots are used to support the sides of wells and supply roofing material for huts, while its buds are eaten with butter, curd and condiments by the inhabitants. As its leaves are eaten by camels it is an important source of fodder for them.

The *Sajji* (Salrola griffithaii) is another important and valuable plant which grows in plenty in the firm soil, north of the Ghaggar and in

the south-west of Anupgarh. When burnt, it yields an impure carbonate of soda used in washing and dyeing cloth.

The *Lana* and *Sajji* are also found from which inferior quality of soda is obtained. A large number of fodder grasses also grow in the area viz., *Bharut* (Cenchrus catharticus), *Sawan* (Eleusine flage illifera), *Dhaman* (Pennis etem cenchroides), *Ganthil* and *Kiu*. These grasses make wonderful grazing patches in the area full of sand dunes. *Thor*, another plant, found here has medicinal properties. Its juice is extracted and used by the local people as a cure in certain diseases.

Forests

No forest worth the name existed in Ganganagar division of former Bikaner State due to adverse climatic conditions, such as, scarcity of surface water, unstability of soil because of dissicating winds in summer, extremity in temperature and scarcity of rains etc., prevailing in the area. Efforts, however, were made to preserve the meagre tree growth wherever found existing and to encourage the planting of new trees by private persons by grant of rewards and concessions. Trees were also both planted and preserved at State expenses and their cutting was prohibited when green. These measures resulted in an appreciable increase in the number of trees grown in the area.

Management of forests was introduced in 1910, with the appointment of a Forest Officer to look after the forest development in the area. He was assisted by a few forest guards, and placed under the administrative control of the Revenue Commissioner, Ganganagar. Appreciable increase in the number of trees and plantation, however, has taken place after the advent of Gang Canal in the area. Certain areas at Hanumangarh, Madh and Gangapura were, in the first instance, categorised as forest reserves. With a view to developing forests, nurseries at Ganganagar, Karanpur, Raisinghnagar, Jaitsar and Padampur were set up and several lakhs of *Shisham* (Dalbergia sissoo) and *Siris* (Albizzia) seedlings were raised and distributed to individuals for plantation on their lands. These plants have taken to the soil in due course of time and are flourishing. After integration of the Bikaner State in Rajasthan, the efforts at planting new trees in the area have been vitalised. The State Government has been following a policy of raising forests on scientific lines, as a result of which Ganganagar district now can take pride in having the first irrigated forest plantation in Rajasthan. Species like *Shisham*, Mulberry and Evcalyptus were planted on the banks of canals, their distributaries and minors. The Forest

Department of the State Government has also taken up large scale afforestation to check the spread of *Thar* desert towards north and east.

At present protected forest extends over 2,102,75 hectares or 5,196 acres of *Shisham* and *Toot* plantation in chak numbers 11, 13, 15, 17 and 40 of Sham Singhwala Distributary, and 13 and 15 of Kishanpura Distributary. Unclassed forest of *Shisham* and *Toot* plantation of 675.82 hectares or 670 acres exist in chak numbers 38 and 44 of Sham Singhwala Distributary.

Besides, 60.7 hectares (150 acres) along Sadul Branch (Bhakra); 182.1 hectares (450 acres) along Rajasthan Feeder and Rajasthan Canal of plantations consisting of *Babul*, *Shisham* and *Khejra* have been raised on the canal banks. *Babul* and *Shisham* plantations, along the main and other canals of the Gang Canal System, do not fall under the category of reserved or protected forests.

Important trees found in the district are *Khejra*, *Babul* or *Kikar*, *Shisham* or *Talli*, *Neem*, *Toot*, *Sares*, *Rohira*, *Beri*, *Kair* and Mulberry.

Nurseries

Nurseries have already been established primarily to meet the requirements of irrigated plantations and for seedlings of the local population, Panchayats and Government Departments, to enable them to raise groves and plantations of their own. The details of nurseries in the district are given below :

S. No.	Name of Nursery	Location	Area in hectares	Approx. number of plants
1	2	3	4	5
1.	Bhakra Canal Nursery	Near Hanumangarh Town	2.0	1,00,000
2.	Plantation Nursery	In the Hanumangarh Plantation area	6.0	1,00,000
3.	U.T.K. Raisinghnagar Nursery	Near U.T.K. chak	3.0	50,000
4.	Jaitsar Nursery	Near Jaitsar *Mandi*	2.0	25,000
5	Bhalolnagar Plantation	Near Bhalolnagar village in outlet No. 38 of Sham Singhwala Distributary	0.8	40,000

1	2	3	4	5
6.	Sadul Branch Plantation Temporary Nursery	Near Manaksar Railway Station along Sadul Branch Canal	0.4	10,000
7.	*Mandi* Nursery	Near Hanumangarh Junction along the Sadul Branch Canal	4.0	Abandoned from the year (1963-64).

Importance of Forest Economy

Forest plays an invaluable role in the economy of any area but it is much more so in this district. Their development besides fulfilling the local needs for fuel and timber has boosted the economy of the district to a very great extent. They have released cowdung manure for agricultural farms and produced sufficient quantity of grass for the cattle of the district and the neighbouring areas. Moving sand dunes and blocking and silting up of the canals have been checked up, and the climate has been rendered a bit moderate. Afforestation also gives shelter to wild life incidentally providing recreational game to the local population. Proper development of forests in this area will entirely meet the needs for fuel, fodder and check the menace of the advancing desert. It will also go a long way to protect the crops from the dust storms and attract more rains.

The Forest Department has plans to raise irrigated plantation in the area served by the Rajasthan Canal which when completed will water vast virgin lands in Hanumangarh, Suratgarh, Anupgarh, Raisinghnagar in this district and other parts of the adjoining districts.

No revenue accrues to the Forest Department from this district as the forests are yet not mature enough to yield any revenue.

FAUNA

Birds

The birds most commonly found in the district, are pigeons, crows, sparrows, peacocks and parrots. The poultry birds namely cocks and hens are also found but they are domesticated. The various types of local as well as migratory birds in which this district abounds can be classified as follows :

1. Residential and winter visiting birds useful to agriculture:

Common Name	Local Name	Zoological Name
Barn Owl	*Ulloo*	Tyto alba
Blue-Jay	*Nilkanth*	Coracius benghalensis
Common Babbler	*Laili*	Argya caudata
Common Mynah	*Kabar*	Acridotheres tristis
Great Grey Shrike	*Suganchiri*	Lanius excubitor linnaeus
Hoopoe	*Khati-chira*	Upupa epops
Indian Swift	—	Micropus affinis
King Grow	*Kalcheet*	Dicrurus macrocercus vicillot
Pharaoh's Chicken	*Rajghughu*	Neophron percnopterus
Pariah Kite	*Cheel*	Milvus migrans
Pied Bush-Chat	—	Saxicola caprata
Red-vented Bulbul	*Bulbul*	Molpastes cafer
Red-wattled Lapwing	*Tituri*	Lobivanellus indicus
Rosy Pastor	—	Pastor roseus
Shikra	*Shikra*	Astur badius
Spotted Owlet	*Kochar*	Athene brame (temminek)
White-Backed Vulture	*Gid*	Pseudogyps bengalensis (Gmelin)
White-cheeked Bulbul	*Pincha*	Molpastes leucotis

2. Residential birds harmful to agriculture:

Common Name	Local Name	Zoological Name
Blue-tailed Bee-Eater	—	Merops superciliosus
Green Bee-Eater	—	Merops orientalis (Latham)
Green Parrakeet	*Tota*	Psittacula krameri
House-Sparrow	*Chiri*	Passer domesticus
Indian Ring-Dove	*Kameri*	Streptopelia risoria
Little Brown-Dove	*Kameri*	Streptopelia senegalensis

3. Common birds of neutral value to agriculture:

Common Name	Local Name	Zoological Name
Common House Crow	*Kagla*	Corvus splendens
Common Peafowl	*Mor*	Pavo cristatus
Desert Wheatear	—	Oenanthe deserti

4. Game birds:

Common Name	Local Name	Zoological Name
Common Sandgrouse	*Batbar*	Pterocles exustus
Grey Partridge	*Titar*	Francolinus pondicerianus
Imperial Sandgrouse	*Batbar*	Pterocles orientalis

The game birds are: Black and Grey Patridges, Imperial and *Desi* Sand Grouses, Quails, Kunj and Tillor. Partridges and Grouses are found in plenty, while Quails, Kunj and Tillor are seasonal birds and con.e down to this district in winter from distant lands. The Great Indian Bustard, the famous game bird is now confined to sand dunes away from human habitation. The *Talwara Jhil* in the Hanumangarh tahsil and the *Dhab* in Suratgarh used to be the favourite recreational spots for shooting of birds by the former rulers of Bikaner. They gave ample protection to the fauna of their land, and forbade indiscriminate promiscuous shooting and took keen interest in preserving the wild life existing in the area.

Animals

About ten years back, the uncultivated stretches around Suratgarh were known for black-bucks and *Chinkaras* wandering in herds after herds, consisting of hundreds of heads in each. Irrigation facilities have brought most of the land now under plough and this beautiful form of wild life has practically disappeared. They have moved out to less inhabited sand-dune localities. Approximately 2,428.1 hectares (6,000 acres) forest blocks of irrigated plantations provide shelter to *Chinkaras* and Blue-bulls (*Neelgai*) whose number has registered a steady and substantial increase in the area as the local population are averse to killing them on religious sentimental grounds. This increase in number of Blue-bulls, however, has proved harmful to crops. Rabbits, foxes, jackals, wolves (Canis surens) and porcupines (Hystrix indica indica) are also found all over the district. The Desert Cat (Felis lybica ornater) of pale sandy colour with black spots and red fox (Vulpes pusilla) are also quite common while mongooses (Herpestes) generally live in sandy areas though sometimes an odd family may also be found inhabiting old ruins. Continuous killing of the Indian Gazelle (Gazella bennetti sylles) by the game hunters has almost exterminated the species, but wild boar (Sus scrofa cristats) and hare (Lepus nigricollis dayanus) are also found in the district. Camels called the ship of the desert are a common sight and a detailed description of this important animal has been recorded in the fourth chapter on Agriculture and Irrigation, a few horses, cows, buffaloes, goats,

wild dogs and elephants etc., amongst the domesticated animals exist in fair abundance.

Reptiles

All the three types of poisonous snakes namely; vipers, cobras and kraits are found in the district. A species of viper, locally known *Bandi*, is deadly poisonous and quite common. Though snakes are found all over the area, yet, in places like Gogameri and other *Barani* tracts (unirrigated areas) of Nohar and Bhadra tahsils they are quite plentiful. *Sanda* (a lizard) and *Gohira* also exist in the district though the former is confined mostly to the Hanumangarh tahsil and is found in abundance in the tract between Suratgarh and Hanumangarh.

Common insecticides found in the area are locusts, grass hoppers and hedge hogs (Hemiechinus auritus collaris) etc.

Fishes

Species of fish which are usually found in the canals and their distributaries are Labeo rohit, Mastacembelus armatus, Ophiocephalus, Barilius bendelises, Chela clupeodes and Barbus tor. Toads (*Bufo*) and frogs (*Rana*) are common, especially after rainy season.

There is no game sanctuary or a botanical garden in the district.

CLIMATE

The climate of the district is marked with large variations of temperature, extreme dryness and scanty rainfall, which are characteristic of a desert climate. The cold season from November to March is followed by summer from April to June. The period from July to mid-September constitutes the south-west monsoon while mid-September to October is the transitional post-monsoon period.

Rainfall

Records of rainfall are available for eleven raingauge stations in the district, for periods ranging from 37 to 60 years. Tables 1 and 2 give the details of the rainfall at these stations and for the district as a whole. The average annual rainfall in the district is 255.4 mm. In general, the rainfall increases from the north-west to south-east, the annual rainfall varying from 190.8 mm. at Karanpur near the north-western border of the district to 384.5 mm. at Bhadra near the south-eastern border. About 82 per cent of the annual rainfall in the district is received during the months from June to September. July and August being the rainiest. The variation in the annual rainfall from year to year is very large. During 1906 to 1950,

the highest annual rainfall in the district amounting to 216 per cent of the normal occurred in 1917, while the very next year witnessed the lowest rainfall which was only 43 per cent of the normal. During the same period, rainfall less than 80 per cent of the normal occurred in fourteen years. In the district as a whole, there were two spells of two consecutive years and one of three consecutive years when rainfall recorded was less than 80 per cent of the normal, but at individual stations such low rainfall for two consecutive years and sometimes three, four and five consecutive years has been recorded. Suratgarh had six consecutive years of rainfall which was less than 80 per cent of the normal, during the period 1936 to 1941. It will be seen from table 2 that the rainfall recorded in the district was between 201 and 300 mm. i.e., between 78 per cent to 117 per cent of the normal or about within 20 per cent of it in only 19 years out of 45.

On an average, there are 16 rainy days (i.e. days with rainfall of 2·5 mm. or more) in a year in the district. This number varies from 12 at Anupgarh on the west to 20 at Bhadra in the east.

The heaviest rainfall in 24 hours recorded at any station in the district was 251·7 mm. at Ganganagar on August 31, 1928.

Temperature

There are two meteorological observatories in the district, one at Anupgarh and the other at Ganganagar. The observatory at Anupgarh has been set up only recently. The records of Ganganagar available for a longer period may be taken as representative of the climatological conditions prevailing in the district as a whole. Temperatures rise rapidly after March. May and June are the hottest months with the mean daily maximum temperature rising up to about 42° C. The summer heat with scorching, dust laden winds blowing frequently becomes intense and unbearable and the day temperature sometimes goes up to 50° C. Ganganagar is one of the hottest places in India in summer. With the advance of south-west monsoon by about the middle of July, temperature drops down a little, but weather continues to be oppressive due to increased moisture in the air. With the withdrawal of the monsoon by about the latter half of September, day and night temperatures both begin to fall, the drop in night temperature being more rapid. The diurnal range of temperature is very large, particularly in the winter months and its drop after nightfall is rather sudden and trying. January is the coldest month with the mean daily minimum temperature at 4·7° C and the mean daily maximum at 20·5° C. In the wake of western disturbances moving across North India during the winter season, cold waves affect the district and the minimum

temperature sometimes drops to 2° or 3° C below the freezing point resulting in frosts.

The highest maximum temperature on record at Ganganagar was 50·0° C on June 14, 1934 and the lowest minimum was -2·8° C on February 11, 1950.

Humidity

Except during the short rainy season, humidity is low and even during this period the air is drier in between the rains. The summer months are the driest, especially the afternoons during April and May when the relative humidities are of the order of 20 to 25 percent.

Cloudiness

Even during the south-west monsoon season, the skies are over cast or heavily clouded only on a few days, on other days they are only moderately clouded. In the rest of the year, skies are mostly clear or lightly clouded except during the winter months when due to passing western disturbances, they are over cast for short spells of a day or two.

Winds

Except for their blowing moderately during the period from May to September, winds are generally light. During this period they move mostly from directions between south and west. During the subsequent period of October to March, winds are generally light varying in direction in the morning but in the afternoons, they gain in speed and blow mainly from directions between north-west and north-east. In April, the morning winds are variable in direction while in the afternoon, they move mainly from directions between south-west and north.

Special weather phenomena

Some of the depressions which originate in the Bay of Bengal in the south-west monsoon season and move in a western direction, reach the district or its neighbourhood during their last stages of activity and cause widespread rain. An occasional post-monsoon storm or depression may also affect the district. Frequently sand and dust-storms, and less frequently, thunder-storms occur in the hot weather. During the south-west monsoon rain is also sometimes accompanied with thunder. During the cold season fog occasionally envelops the sky in the wake of western disturbances.

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

TABLE 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 & years**	Lowest annual rainfall as % of normal & years**	Heaviest rainfall in 24 hours* amount (mm.)	Heaviest rainfall in 24 hours* Date
1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Karanpur	23	a.	8.1	6.6	2.8	3.8	3.6	22.1	70.6	54.9	14.7	1.8	0.0	1.8	190.8	172	27	94.0	1948 Aug. 10
		b.	1.1	0.7	0.5	0.5	0.4	1.4	3.8	3.8	0.9	0.2	0.0	0.3	12.8	(1944)	(1943)		
Padampur	23	a.	8.9	9.9	6.1	5.3	3.6	20.8	62.7	63.3	17.5	1.3	0.0	1.8	201.2	222	37	129.5	1928 Aug. 31
		b.	1.1	1.0	0.6	0.3	0.4	1.4	3.7	3.6	1.0	0.1	0.0	0.2	13.4	(1944)	(1943)		
Raisinghnagar	23	a.	9.1	12.5	7.4	3.6	1.3	17.8	72.4	62.2	17.5	1.0	0.0	1.8	206.6	227	41	130.6	1948 Aug. 10
		b.	1.1	1.2	0.7	0.3	0.2	1.4	3.9	3.1	1.2	0.2	0.0	0.31	3.6	(1944)	(1939)		
Anupgarh	45	a.	4.6	8.1	6.1	3.6	4.3	16.3	59.4	58.4	23.4	4.1	0.0	3.1	191.4	260	08	127.0	1964 July 28
		b.	0.6	0.6	0.4	0.5	0.5	1.1	3.6	2.9	1.2	0.2	0.0	0.2	11.8	(1908)	(1918)		
Suratgarh	45	a.	7.1	8.4	6.9	7.9	5.3	22.9	62.2	64.5	34.5	3.3	0.0	4.1	227.1	234	28	141.7	1912 July 11
		b.	0.9	0.8	0.7	0.7	0.8	1.8	4.0	4.0	1.9	0.4	0.0	0.4	16.4	(1908)	(1943)		
Hanumangarh	45	a.	11.2	10.7	5.8	5.3	7.1	31.5	91.7	76.2	41.4	3.3	0.0	4.3	288.5	208	21	142.2	1940 July 24
		b.	1.0	1.0	0.6	0.6	0.7	1.9	4.4	3.9	2.0	0.2	0.0	0.4	16.7	(1908)	(1918)		

(Concld.)

1	2		3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Nohar	45	a.	9.9	7.4	7.6	5.6	8.4	33.3	88.7	82.3	50.3	5.6	1.3	7.4	307.8	254	32	198.1	1917 Sept. 21
		b.	0.9	0.6	0.6	0.5	0.9	2.3	4.8	4.3	2.2	0.3	0.1	0.6	18.1	(1917)	(1943)		
Bhadra	45	a.	12.2	10.2	9.1	5.3	8.9	33.5	130.3	101.6	58.2	8.4	1.5	5.3	384.5	220	31	162.8	1930 July 15
		b.	1.0	0.9	0.8	0.6	0.9	2.0	5.0	5.1	2.4	0.4	0.1	0.5	19.7	(1917)	(1920)		
Ganganagar	14	a.	17.5	15.2	10.7	7.4	7.1	46.5	65.5	91.7	36.1	1.8	0.0	3.8	303.3	212	41	251.7	1928 Aug. 31
		b.	1.8	1.5	1.0	0.9	0.9	2.1	4.6	4.1	1.9	0.3	0.0	0.4	19.5	(1945)	(1943)		
Mirzawala	19	a.	7.1	9.1	6.6	4.6	2.5	19.1	68.8	62.7	30.7	3.3	1.3	4.1	219.9	322	18	141.0	1908 Aug. 30
		b.	0.8	0.7	0.6	0.7	0.3	1.4	3.7	4.0	2.0	0.4	0.1	0.3	15.0	(1908)	(1918)		
Tibi	18	a.	10.7	9.1	8.4	9.1	8.4	21.8	63.0	92.2	52.6	9.1	0.3	4.3	289.0	278	31	130.8	1917 Sept. 15
		b.	0.7	0.8	0.9	0.9	0.9	1.8	3.5	3.8	2.1	0.6	0.1	0.4	16.5	(1917)	(1918)		
Ganganagar (district)		a.	9.7	9.7	7.0	5.6	5.5	26.0	75.9	73.6	34.3	3.9	0.4	3.8	255.4	216	43		
		b.	1.0	0.9	0.7	0.6	0.6	1.7	4.1	3.8	1.7	0.3	0.0	0.4	15.8	(1917)	(1918)		

(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.

TABLE II

Frequency of Annual Rainfall in the district
(Data 1906–1950)

Range in mm.	No. of years	Range in mm.	No. of years
101–200	13	400-500	1
201–300	19	501–600	2
301–400	10		

Data available for 45 years only.

TABLE III

Normals of Temperature and Relative Humidity
(Ganganagar)

Month	Mean daily maximum temperature °C	Mean daily minimum temperature °C	Highest maximum ever recorded		Lowest minimum ever recorded		Relative humidity	
			°C	Date	°C	Date	0830 %	1730* %
January	20.5	4.7	36 1	1948 Jan. 30	–2.2	1945 Jan. 12	80	45
February	24.1	7.5	35.0	1953 Feb. 28	–2.8	1950 Feb. 11	74	37
March	29.6	11.1	41.1	1942 Mar. 26	0.6	1945 Mar. 26	63	31
April	36.3	18.2	46.6	1958 Apr. 25	8.3	1940 Apr. 3	41	22
May	41.5	24.0	49.4	1944 May 30	11.7	1945 May 4	33	18
June	42.1	28.0	50.0	1934 June 14	18.3	1952 June 17	45	27
July	38.8	28.1	46.7	1948 July 2	20.9	1963 July 22	64	47
August	37.3	26.9	42.8	1946 Aug. 21	21.7	1950 Aug. 2	68	56

1	2	3	4		5		6	
September	36.6	24.1	42.8	1939 Sep. 24	15.6	1944 Sept. 29	67	42
October	35.0	17.0	41.1	1952 Oct. 4	6.7	1949 Oct. 31	57	30
November	29.4	8.9	37.2	1943 Nov. 2	1.7	1938 Nov. 30	59	35
December	23.3	5.5	31.1	1959 Dec. 4	-1.7	1950 Dec. 28	75	43
Annual	32.9	17.0					61	36

* Hours I. S. T.

TABLE IV

Mean Wind Speed in km./hr.
(Ganganagar)

Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
4.0	5.0	6.4	6.8	8.0	10.7	9.6	8.0	6.2	4.7	3.3	3.4	6.3

TABLE V

Special Weather Phenomena
(Ganganagar)

*Mean No. of days with	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Thunder	0.6	0.4	1.0	1.3	1.2	1.2	2	1.8	1.3	0.3	0.2	1.6	1.3
Hail	0	0	0.1	0	0.1	0	0	0	0	0	0	0	0.2
Dust-storm	0	0.2	0.8	1.6	4	4	3	1.4	1.0	0.5	0	0.1	17
Squall	0	0	0	0	0	0	0	0	0	0	0	0	0
Fog	4	1.1	0.8	0.3	0.6	0.1	0	0.1	0.1	0.1	0.5	2	10

*No. of days 2 and above are given in whole numbers.

CHAPTER II

HISTORY

PRE-HISTORY

Ganganagar district lies in the Great Indian Desert, known as the Thar Desert. Geologists think that in the pre-historic times (geologically in the Jurassic, Cretaceous and Eocene periods) there was probably a sea extending right upto this area, but it receded gradually. This sea might have extended for some distance to the north of the Rann of Cutch into the Indus, Saraswati and Luni valleys in Sind and Rajasthan.[1] But it can not be said when the area, covered by the sea, became a dry land. Some geologists, however, are of the view that it dried up sometime in the Upper Tertiary. They also think that between 4000 B.C. and 1000 B.C. the desert began to extend in this area, and after the appearance of marshy land some vegetation began to grow rendering animate habitation possible. It was a long period, which elapsed before any sign of human life could appear on the shrub-studded marshy land. No one knows at what period human beings began to roam about this area and carved out sheltered settlements. It is, however, obvious that it remained a no-man's land for many centuries.

PROTO-HISTORY

In the ancient times, two rivers, hallowed in Vedic hymns, namely, Saraswati and Drishadvati now visible only in dry-beds, flowed through this territory. These beds have been explored to a considerable extent by archaeological experts. The excavations, organised in this region in the last half a century, have proved that to this area, especially the northern and north-western part of the district, the civilisation of the Indus Valley had extended and it was inhabited by the people akin to those who had flourished at Mohenjo-daro and Harappa. Dr. L.P. Tessitory had explored the dried bed of Hakra (recognised as ancient Saraswati) in 1917-1919. The mounds locally called *ther* or *theri*, which had been excavated, were found covered with pieces of broken pottery. From the housewalls in the villages of Badopal and Rangmahal, he could detach very interesting relics and stations of red-burnt clay. He considered those terracota

1. *Bulletin of the National Institute of Sciences of India*, September, 1952, pp. 19–20.

sculptures as an off-shoot of the Buddhist art of Gandhar. The next excavator, Sir Aurel Stein, in the year 1941, brought to light a number of pre-historic sites in this region and held the view that the area was undoubtedly a seat of a great civilisation now shrouded in mystery due to its burial in sand.

Another excavator was Dr. Herman Goetz, who observed in 1946, "It seems more probable that they (the remains found here) are the last remnants of crude mud-houses and forts such as were 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 Hanumangarh (Bhatner)".[1] Dr. Goetz does not ascribe these remains to the Mohenjo-daro period (approximately from 2350 B.C. to 1750 B.C. as per radio carbon dates) but to its later off-shoot.[2]

During the years 1952-54, the Swedes under the guidance of Dr. Hanna Rydh also undertook excavations in this region. A. Ghose also found numerous mounds strewn with potsherds, large and well-built bricks and actual remains of kilns. A site, called Kali-bangan, on the southern bank of the Ghaggar (ancient Saraswati), in this district, is being systematically excavated since 1961.[3] The two excavated mounds show well laid roads which are characteristically Harappan (running approximately north to south and west to east) and houses with drainage system. It is a sure evidence of town planning. The other mound reveals a massive mud-brick platform over which stood houses or remains of a citadel-like construction, such as was found at Harappa and Mohenjo-daro. It was at first regarded to be the third provincial capital, guarding the Saraswati valley, but further work on the mound could not confirm this theory.[4] The excavated houses show that they had been built with mud-bricks and plastered again with mud. The floors, made of rammed-clay, were paved with terracotta nodules, interspersed with fairly large bits of charcoal. The famous terracotta 'cakes' were also utilised for paving floors.[5] These houses present, 'small oblong enclosures of mud-bricks often containing broken bits of jars and clay-lined oval pits full of charcoal and occasionally having one or more bricks in the middle'.[6] The potsherds have inscribed on them letters resembling

1. Goetz, Herman, *The Art and Architecture of Bikaner State*.(Oxford, 1950) p. 25.
2. *ibid.*
3. Sankhalia H. D., *Pre-history and Proto-history in India and Pakistan*, pp. 156–60.
4. Lal, B.B. quoted by H.D. Sankhalia, *ibid.*, p. 160.
5. Sankhalia, *op. cit.*, p. 160.
6. *ibid.*

Indus script, which have not so far been deciphered. As the stratification shows, this 'Kalibangan Culture' preceeded the Harappan culture.[1]

Numerous mounds strewn with potsherds, large well-burnt bricks and actual remains of kilns have also been found along the banks of Ghaggar and its tributary and in Ganganagar district at Bhatner (about 15 metres or 50 feet high), Bhadrakali and Fatehgarh (about 15 metres or 50 feet high) and at Kalibangan, Rangmahal, Karnisar, Bhawar (about 12 metres or 40 feet high).

Archaeologically, these pottery remains can be assigned to at least three periods.[2] The earliest pottery is often painted and is identical with that found at Harappa or at Mohenjo-daro. To the second period, belongs the grey ware painted pottery. To the third period, belongs a fine ware, red and black painted ware. On the basis of its similarity with that of Harappan pottery, it may be said that it reveals the most prosperous period of about 1500-2000 B.C. or still earlier.[3] Who originally inhabited the country around these river-beds is yet not known. However, some scholars are of the view that the people, who used painted grey ware, were possibly having some connections with the people at Shahi-Tump (in Iran) where, in the excavations of the graves, the same type of painted pottery has been found. This type of ware is being increasingly associated with the Aryans. Use of this grey ware in the Saraswati-Drishadvati valley lying in this district, was possibly in vogue before the entry of the Aryans into the Ganga Yamuna plains.[4] This point is significantly indicative of the association of the Aryans with the painted-grey ware. The Aryans, the users of the ware, came on the heels of the decline of a highly advanced Harappa civilisation. They were poorer now in contrast to their previous life. It seems probable that the people using the grey ware, had a taste for beauty and decoration and *Svasitka* was a favourite (symbol) with them. It seems possible that it was a period when defensive fortification to safeguard their townships against encroachment of floods and enemies, had begun to be made. As the towns grew up on river banks for various natural advantages that such situations conferred, the advantage of the rivers water was also taken to surround the fortresses with unfordable moats that were at once

1. Lal, B. B., *A picture emerges: An assessment of carbon-14 Datings of the Proto-historic culture of the Indo-Pakistan Sub-continent*, Ancient India, Journal Nos. 18–19, p. 212.
2. *Bulletin of the National Institute of Sciences of India*, September, 1952 (New Delhi), pp. 47–48.
3. *ibid.*, p. 48.
4. Banerjee N. R., *The Iron Age in India* (New Delhi, 1965), pp. 102–103.

deep and wide. The forts had provisions for gateways and passages which were secured against any possible erosion by using hard clay for the purpose. It seems that agriculture was the mainstay of life and some crops were harvested.[1] Dr. Banerjee concludes, "the users of the deluxe-Painted-Gray-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 through the megalithic folks a little later".[2] Recent excavations at Nohar have also proved the connection of black and red ware with the Rangmahal and Kalibangan remains and their civilisation. The continuity of tradition, evident in decoration of the pottery remains, makes it appear probable that for quite a long time this area was a rendezvous for the tribes under the influence of the Indus civilisation.

ANCIENT PERIOD

As early as the Vedic period, this region must have been inhabited by the Aryans as the Saraswati (modern Ghaggar-the Hakra) had been one of their most holy and sacred rivers. Their habitations extended to the land of five rivers. *Brahmavarta* lying between the Saraswati and the Drishadwati included a portion of the Punjab and the northern part of this district. It also once resounded with the chanting of the sacred Vedic hymns in praise of the Aryan gods.

According to the *Mahabharata* this part of the territory was known by the name of *Jangalu* which was often expressed in the compound terms *Madreya-Jangala* and *Kuru Jangala*.[3] It seems that the territory known as *Jangala* was adjacent to the *Kuru* and *Madra*; and whenever that portion of *Jangala* adjacent to *Kuru* or to *Madra* was meant, the compound term of *Kuru-Jangala* or *Madreya Jangala* was used. Dr. G.H. Ojha locates the *Jangaladesha* towards the south of *Mudra* and *Kuru*.[4] Besides this, the physical features of the *Jangaladesha* have been described in the Sanskrit work, *Sabda-Kalpadrumakosa*, as the land, where water and grass are scarce, where high winds blow and heat is intense and food grains grow in abundance after rains.[5]

1. Banerjee, *op. cit.*, pp. 196–199.
2. *ibid.*, p. 233.
3. Ojha, G. H. quotes *Bhisma Parva*, Ch. 9, *Shlok* 39 and *Vana Parva*, Ch. 10, verses 11 in his book, *History of Rajputana*, Vol. V, part I (1939), p. 2, fn.
4. Ojha G. H., *History of Rajputana*, Vol. V, Part I (1939), pp. 1–2.
5. Quoted by Ojha, G. H., *ibid.*, p. 1 fn.

These physical features also go to show that this territory, alongwith Bikaner district, was recognised as *Jangaladesha*. According to Dr. R.B. Singh also *Jangaladesha* lay towards the south of *Kuru* and *Madra* and comprised the parts of the former Bikaner and Jaipur States and northern portion of the Marwar territory.[1] Eversince the medieval times the rulers of Bikaner State were called *Jangaladhar Badshah* because of their territory being known as *Jangaladesha*. This also proves the antiquity of the nomenclature of this territory.

Yaudheyas

Yaudheya in Sanskrit is derived from *Yoddha* meaning a warrior. We find the first mention of this tribe in the renowned work *Ashtadhyayi* of the celebrated Sanskrit grammarian, Panini (C. 4th century B.C.) as *Ayudhjivi Kshatriyas* i.e. Kshatriyas living by the profession of arms. Though the heart of their territory was presumably south and eastern Punjab, they held sway over adjoining tracts of Uttar Pradesh and Rajputana.[2] It may be safely assumed that northern part of Rajasthan including a large portion of what is now Ganganagar district was under their dominion. Clay seals and coins have been unearthed at a number of places which incidentally help in showing the extent of their territory. The inscription found at Bijaynagar (in Bharatpur district) attests the Yaudheyas' extension in Rajasthan. These evidences go to prove that their dominion must have extended to the adjoining territories lying in the south and eastern part of the Punjab, some tracts of Uttar Pradesh and the northern portions of Rajasthan (now in Ganganagar district). In this district there are people still, who call themselves as Johiyas which is only a corrupted form of the Yaudheyas and their land is known as *Johiyawar*.[3]

According to the *Mahabharata*, Yaudheya was one of the sons of Yudhishthira, the eldest among the Pandavas, and Yaudheyas, accordingly claimed their descent from the Pandava king. Their tutelary deity was *Brahmanyadeva* (*Kartikeya*), the commander-in-chief of the *Devas* in Indian mythology.[4] However, according to the Jaina sources Yaudheyas were the worshippers of goddess, Chamunda.[5] They were undoubtedly sturdy, war-like, untamable and powerful people.

It has been established from the different varieties of Yaudheya coins discovered that they formed a republican tribe. The unearthed coins

1. Singh, R.B., *The History of the Chahamanas* (1964), p.667.
2. *The History and Culture of the Indian People*, Vol. II (1960), p. 166.
3. Ojha, *op.cit* , p. 69 and p. 22, fn.
4. *The History and Culture of the Indian People*, Vol. II, *op. cit.*, pp. 165-166.
5 *Rajasthan Through the Ages*, Vol. I, Bikaner (1964), pp. 53 and 58.

of the third and fourth centuries A.D. bear the phrase *Yaudheya-ganasya jayah* (victory be to the republic of the Yaudheyas) besides *dvi* and *tri* inscribed on them. It has been suggested that *dvi* and *tri* indicate the second and third of the three sections of the Yaudheya tribe into which it was perhaps divided. The present day Johiyas are also divided into three tribes, viz., Langavira (Lakvira), Madhovira (Madhera) and Adamvira (Admera).[1]

Abhiras

Another people known as Abhiras also lived in the area. Their exact location is unknown. To this day the tract near Rewari is known as *Abhiravati*. It is not, therefore, unlikely that there might have been an Ahira or Abhira State, not very far from Ganganagar area.[2]

Mauryas

The Mauryas, who rose to power after Alexander's return from India and had succeeded in establishing a vast empire covering the whole of northern India and a large part of south, ruled over the territories now forming Rajasthan of which this district is a part.

Greeks

After the decline of the Mauryas the Greeks, after establishing themselves in western India and north-west provinces, invaded the Uttar Pradesh and Rajasthan. They invaded Madhyamika, now called Nagari (11 kilometres from Chittorgarh). Their invasion of Madhyamika is referred to by Patanjali in his *Mahabhashya* as *'around yavanah Saketam: arunad yavano Madhyamikam* meaning thereby that a Yavana (Greek) besieged Saketa (Ayodhya) and Madhyamika.

Kushans and Western Kshatrapas

The influence of the Kushans was probably felt in the northern areas of Rajasthan. An inscription of Kanishkas proves his occupation of Bahawalpur and the region adjoining it.[3] It might also be possible that Kadphises II ruled over this area because the coins of the Kushan ruler have been found from the mounds of Suratgarh and Hanumangarh by Sir A. Stein.[4] Kushan coins have also been unearthed at Rangmahal.[5]

1. *The History and Culture of the Indian People*, Vol. II, p. 167.
2. *Rajasthan Through the Ages*, Vol. I, pp. 7 and 54.
3. *ibid.*, pp. 54-54.
4. *ibid.*
5. *ibid.*

The western Kshatrapas or Satrapa, a branch of the Sakas, ruled over some portions of the south-western Rajasthan first under the leadership of Nahapan and then of Rudradama they extended their sway over the north-western parts of Rajasthan, now comprising Bikaner and Ganganagar districts. As mentioned earlier, these areas were populated by the Yaudheyas. Rudradama's inscription (at Junagarh) of C. 150 A.D. testifies the fact that he had waged war against the freedom loving Yaudheyas, styling them as 'heroes' in the list of the republican tribes who inhabited the areas lying adjacent to the Yaudheyas.[1] The authority of the Sakas and Kushans, was challenged by the Yaudheyas and ultimately they succeeded in expelling them from their territory.[2]

Guptas

After the decline of the Kushan power, the Yaudheyas tried to regain their lost prestige, but they could not hold their own against the mighty Guptas. The Allahabad pillar inscription of Sumudragupta (C. 335-375 A.D.) shows that the Yaudheyas were subdued by the Guptas of Magadh about the second half of the fourth century and remained under their sway till the end of the Gupta Empire. Under Samudragupta and Ramgupta the frontier of the Gupta Empire might have lain along the line of the river Sutlej. Chandragupta II extended the boundary of his empire upto Afganistan, but under Kumargupta I, it had been pushed back probably to the East Punjab.[3] Thus Guptas presumably ruled here for about two centuries (C. 335-500 A.D.). To these two centuries of peace and prosperity we may ascribe the architectural and sculptural monuments and the best pottery discovered in the Ghaggar valley.

Hunas

The Hunas, when the once mighty Empire of Guptas started tottering, invaded India. As frontier feudatories, the Yaudheyas must have had to bear the brunt of their attack. After fierce battles, Skandgupta (455-470 A.D.) inflicted on them a crushing defeat and saved the empire from further depredations, but after his death, the Hunas, under the leadership of Tormana, returned and swept over the whole of north-western India including Gujarat, Kathiawad, Rajputana and Malwa in 499 A.D.[4] From the tracks their invading hosts followed, it can be safelys urmised that the

1. Ojha, *History of Rajputana*, Vol I, pp. 104-105. cf. H. Goetz, *op. cit.*, p. 28.
2. H. Goetz, *ibid.*, p. 28. Kushan coins (a few only) have been discovered on the sites excavated in the area, *Rajasthan Through the Ages*, Vol. I, p. 55.
3. Ojha, *op. cit.*, Vol. I, pp. 113-124.
4. *ibjd.*, pp. 128-29.

Yaudheyas were completely overrun and reduced to a subordinate position. We do not hear of their historical importance in the later period.

Harshavardhana

During the times of Harsha (606-647 A. D.), the north-western frontiers of Thaneshwar touched the Huna territories in the Punjab, and in the north, it probably extended upto the hills, in the east it was coterminous with the Maukhari Kingdom of Kanauj, and on the west and south, it probably did not go much beyond the Punjab and the Rajputana desert.[1] From these facts it can be assumed that Harsha had established his domination over the part of Rajasthan, now comprising the Ganganagar district.

Gurjars

When the Hunas disappeared from the canvas of Indian history, the Gurjars took their place. They first settled in the Punjab and then moved towards the south, in the area now falling in Ganganagar and Bikaner districts. No further information about their rule in the territory is forthcoming except that they advanced further south and south-west and ultimately settled in Marwar to found the Pratihar dynasty.

MEDIEVAL PERIOD

The Chahmanas (Chauhans)

The Chahmanas, in the eighth century, occupied the territory around Bikaner, the south-eastern Punjab and other portions of Marwar. They set up their capital at Sakambhari (Sambhar) which gradually became a great focus of political power in the tenth century. The Chahmana empire gradually grew in size and strength till it reached its apex of glory during the reign of Prithvi Raj III (C.1178-92 A.D.). He was one of the most powerful rulers among the Chahmanas who humbled the pride of the Chaulukyas of Gujarat and Gaharwals of Kanauj. His kingdom might have included the territory of the erstwhile Bikaner State, where a few inscriptions of the 12th century have been preserved over slabs in some of

1. Tripathi, R.S., *History of Kanauj* (1959), p. 80.

the cenotaphs.[1] At Hanumangarh (Bhatner) a copper coin was discovered by G.H. Ojha, on which the name of Ajay Raj Chauhan was inscribed which testifies the fact that the Chauhan power extended over this region also, but the extent of their territories cannot be safely demarcated.[2] Mahmud Gazni in 1004 A.D. advanced upto Bhatiya, which was ruled over by one Baji Ray. After a severe fight of four days Mahmud Gazni was able to capture it. Bhatiya has been identified as Bhatner (Hanumangarh) but the identification is not free from doubt.[3] Bhatner and the area around it was regarded as a part of *Bhattiana*, the habitation of the *Bhattis*. It comprised the Ghaggar Valley from Fatehabad (Punjab) to Bhatner together with a portion of the territory lying in north-west of the Ghaggar towards the old bank of the Sutlej.[4] Bhatner means the habitation (*ner*) of the Bhattis who were originally Bhati Rajputs but were forced to embrace Islam later and then they came to be called as Bhattis. Tradition ascribes its foundation to one Bhati Rao, also the founder of Bhatinda in the Punjab. Bhatner probably formed part of the territory held by the Bhati chief Hemhel, from whom the Phulkian houses of Patiala, Jind and Nabha claim their descent.

After the last invasion of Muhammad Bin Sam of Ghor, his lieutenant, Kutubuddin Aibek, succeeded in carving out a Sultanate in 1206 A.D. but he could not consolidate it. In the early Muhammdan period, the country around Bhatner formed an important fief under the Delhi Sultanate, and was a crown province under Iltutmish. Of his successors, Balban consolidated and extended the territories of the Sultanate. During his time, Sher Khan, his cousin or nephew, was governer in the part of the district which lay around Bhatner. Sher Khan is said to have repaired the forts of Bhatinda and Bhatner where he is said to have died in 1269 A.D. A grand tomb was erected to commemorate his memory. It is not known when the Bhattis reseized it from the Delhi Sultans but the history of the campaign of Timur is helpful in this respect. In the year 1398,

1. Singh, R.B., *The History of the Chahmanas* (1960), pp. 181-82. Dr. Singh writes about the extension of the empire of Prithvi Raj III, "in his empire were included the modern Ambala division of the Punjab, Patiala, Nabha, Faridkot, and Simla States and North-Eastern portion of the Bahawalpur State, Jaipur, Alwar, Bikaner, Ajmer and Merwara, most of Jodhpur, portions of Mewar and Malwa, Bundi, Kota, Tonk, Karauli, Jhalawar and Dholpur States in Rajasthan, Bharatpur and Gwalior States, portions of Jhansi and Agra Divisions, the whole of Meerut division, alongwith Tehri and Garhwal in Uttar Pradesh".
2. Ojha, G.H., *op.cit.*, Vol.V, pp. 70–71.
3. *The Imperial Gazetteer of India*, Vol. XIII (1908), p. 39.
4. *The Imperial Gazetteer of India*, Vol. VIII (1908), p. 91.

Bhati Rajput, Raja (or Rao), Dul Chand[1] was occupying Bhatner. Timur, with a band of 10,000 picked cavalry, plundered it and wrested it from Dul Chand whose display of uncommon valour could not save his city and fort from the rapacity and the cruelty of the great marauder. All the adult non-muslims were put to sword and the children and women were enslaved and distributed among the soldiers of Timur. The fort of Bhatner enjoyed a great reputation for its strength and was considered one of the strongest (forts) in Hind.[2] It was surrounded by a desert expanse of 50 *Kos* (200 miles or 160 km.) in which no water was available. The citadel itself was supplied with water throughout the year by a reservoir which was replenished during the rainy season. "The Raja of the fort", writes the author of *Malfuzat-i-Timuri* "is an important person, famous throughout the whole country".[3]

The area around Suratgarh and south-east of Bhatner was formerly called *Sodhawati* as it was occupied by the Sodha Rajputs (a branch of Parmaras) who were later on expelled by the Bhattis many hundred years ago and no Sodha Rajput is to be seen now.[4]

It is said that in the thirteenth century, when this area was included in the dominion of the Chauhans, one Goga Chauhan reigned over the territory which extended from Hansi to the Sutlej. He enjoyed great popularity among the people, who attributed to him some divine powers. In his honour, a fair known as *Goga Meri Ka Mela* is still held at a place of the same name, 25 kilometres from Nohar. It is a widespread belief among many people that a visit to his shrine renders one immune from the fatal effects of snake-bite.

In those days the south-east of Bhatner was inhabited by the Chayal Rajputs who held sway over Nohar, Bhadra and the adjoining territories of Reni and Rajgarh. They subdued the Bhattis of Bhatner and continued to occupy it upto 1527. Because of the presence of hostile Muhammadan neighbours at Hissar, Sirsa and Bhatinda during the Sultanate period (1206 to 1526), they had to be vigilant to protect their liberty.

1. His name is given as 'Duljin' in *Zafarnama* and 'Dulchin' in *Malfuzat-i-Timuri*. But K.S. Lal in his book, *Twilight of the Sultanate* (1963), p. 21 (fn.) suggests that it was Daljit
2. Elliot and Dowson; *The History of India as told by its own Historians* (1964), Vol. III, p. 487.
3. *ibid.*, p. 420.
4. Erskine, K. D., *The Western Rajputana States and the Bikaner Agency* (1909), p. 395.

The mohils, another branch of the Chauhans, seem to have exercised their suzerainty over the areas adjoining this district and now forming the Churu district. Their territory was called *Mohilvati*. Many a time they had to contend against the neighbouring chiefs specially the Sankhlas (or Panwars) who had formed a principality in Janglu (in Bikaner district). The agelong feuds among these neighbours were the order of the day and the changing of sides in the midst of battle was a common practice. Sometimes the powerful Muslim governors of the adjoining territories found in these unending feuds a fertile ground to serve their own interest and wealth.

At this time many smaller ethnic groups like the Jats, Mers, Minas and Gujars, all subject people or half-independent races like the Johiyas (Yaudheyas) and Bhattis around Bhatner and Sirsa, were squeezed in between the ruling Rajput clans, the Mohils of Chhapar-Dronpur, the Parihars and the Sankhlas of Janglu.

After the establishment of Muslim power at Delhi, the various Rajput chiefs of Rajasthan, living in the desert or semi-desert areas, found it convenient to establish strongholds and carve out their principalities in the area. New States like Jodhpur and Bikaner, sprang up in the 15th century due to the daring efforts of adventurous and dauntless Rajput leaders.

Rao Bika, son of Rao Jodha, the founder of Jodhpur, established himself firmly in Bikaner in 1488 after subduing the various tribes, such as, Godaras, Punias and Sarans residing around the area. He contracted a matrimonial alliance with Rao Shekha of Pugal who was the leader of Bhati Rajputs, by marrying his daughter. Considering the times ripe for extending his dominion Bika embarked upon a plan of supplanting his neighbours. It would be outside the purview of this narrative to give any detailed account of all his conquering expeditions but his fight against the Mohils and Sarang Khan deserves a passing mention. In a previous engagement Bika after overthrowing Mohils of *Mohilvati* around Churu and Sujangarh had entrusted the territory to his brother Bida. Mohils, however, reoccupied it with the help of Sarangkhan, the governor of Hissar. Bika again succeeded in routing the combined forces of the Mohils and Turks. His fight against Sarangkhan, the Muslim Governor of Hissar, was in fulfilment of a solemn vow of vengeance taken at Sarang Khan's killing his uncle Kandhal. Not only the Muslim governor had fo suffer the ignominy of defeat but he had to lose his life in an encounter with Nara, the son of Bika at the

village Jhans. The territory was duly annexed and occupied.[1] These occupied territories now form the parts of Ganganagar and Churu districts. Thus Bika laid the foundation of the erstwhile Bikaner State which remained in existence upto 1949 when it was merged into Rajasthan. The history of the Ganganagar district is, in most part, history of the Bikaner State.

After Bika (1488-1504) Rao Lunkaran (1505-26), the third ruler of Bikaner, extended his principality by annexing 440 villages of the *Chayalwara* (the land of Chayal Rajputs), stretching around and south of Sirsa and Hissar after defeating their leader-Puna, who fled to Bhatner.[2] Jet Singh (1526-42), the successor of Rao Lunkaran, pursued the policy of annexation. His troops attacked the weakened Chayals at Bhatner in 1527 and wrested it from them. This fort commanded a strategic position and was also, therefore, coveted by the Mughals who were seeking the foundation of a new empire in India under Babur. After some years, Kamaran, son of Babur and brother of Emperor Humayun, received as his share Kabul, Kandhar, Gazni and the Punjab in the kingdom of Babur.[3] In order to consolidate his hold, he reinforced the frontier posts and invaded Bhatner fort which was strongly guarded by Khet Singh, the grandson of Kandhal (uncle of Rao Bika). After a bitter fight Kamaran succeeded in annexing the fort. Encouraged by his victory, his forces marched against Bikaner. Jet Singh gathered a sizeable army and fell at night upon the Mughal invading host. Having been taken by surprise the forces of Kama ran fled helter-skelter, leaving all its equipment to fall into the hands of the enemy. Bikaner which included the present Ganganagar district was thus well saved by the valour of the Rathors.

But Jet Singh could enjoy no peace even after this triumphant struggle against the Mughals. His principality was invaded in 1541 A.D. by Maldeo, ruler of Jodhpur. The Bikaner ruler could not withstand the attack and lost his life in the battle. Nearly half of his territory was thereafter captured by the Jodhpur ruler. The royal family of Bikaner had to shift to Sirsa, far away from the reach of Jodhpur army. Jet Singh's son, Kalyan Singh (1542-71) had to be content at Sirsa without the Bikaner *gaddi* for nearly three years. He tried to apprise the Delhi emperor of the situation through his brother Bhiv Raj or Bhim Raj but political scene at Delhi had undergone a complete transformation as the

1. Ojha, G.H. *op. cit.*, p. 104.
2. *ibid.*, p. 114.
3. Ojha: *op. cit.*, p. 129, quotes Beals's *An Oriental Biographical Dictionary*, p. 208.

imperial throne was now occupied by a successful rebel, Sher Shah, while the ex-emperor Humayun was running for his life and sought political asylum at Jodhpur. Sher Shah, minutely following the movements of Humayun, decided to chastise Maldeo of Jodhpur before the fugitive Mughal could secure substantial help from him. He accordingly marched against Jodhpur in 1544. Kalyan Singh lost no opportunity in ingratiating himself with Sher Shah and with a view to gaining his support met him near Ajmer. The armies of Maldeo and Sher Shah confronted each other near Ajmer in a battle array, but none took the initiative at firing the first shot for full one month, Maldeo fearing defection by some of his sardars thought it prudent to beat a retreat. He was hotly pursued by Sher Shah, who ultimately occupied Jodhpur in 1544, thereby weakening Maldeo's hold on Bikaner. Kalyan Singh's forces could then succeed in reoccupying Bikaner after three years.

Due to the strategic importance of Bhatner, the rulers of Bikaner regarded its possession as a matter of prestige. Kalyan Singh's brother, Thakur Singh, therefore, tried to wrest it from the garrison left there by Kamaran (in 1538). He succeeded in his aim more by strategy than by direct assault and captured the fort in the name of his brother, Kalyan Singh, the ruler of Bikaner. In due course all the surrounding *paraganas*, viz., Sirsa, Fatehbad and Siwani were also occupied. He remained for twenty years at Bhatner keeping under his heels the warring Johiyas and Bhattis.

Sometime in 1568 during Akbar's reign the imperial treasure, which was being carried to Delhi from Kashmir via the Punjab, was plundered near a village included in Bhatner *Paragana*. The Subedar of Hissar, Nizamulmulk, was ordered to capture the fort of Bhatner which was in the occupation of Thakur Singh. The fort was besieged. After a few weeks, the food provision having exhausted, the Rajput garrison sallied out and fought gallantly, during which Thakur Singh was killed and the fort was captured by the Mughal army and converted into a military out-post. Bagha, the son of Thakur Singh went to Bikaner and after a stay of few months there, proceeded to Delhi to seek an opportunity to serve the Emperor. Akbar, who was greatly pleased with Bagha, restored to him the possession of Bhatner. He erected there a temple in memory of Gorakhnath some years later[1].

In 1570 Kalyan Singh, alongwith his son Rai Singh, went to Nagaur to pay obeisance to Akbar who was encamped there while returning

1. Ojha, *op. cit.*, p. 155.

from his pilgrimage to the tomb at Ajmer. Kalyan Singh waited on the Emperor and paid tribute. "The loyalty and sincerity of both father and son being manifest, the Emperor married Kalyan Mal's (Singh) daughter". Thence Akbar proceeded to Ayodhya, where "Rai Kalyan Mal, who was so fat that he could not ride a horseback, received permission to return to Bikaner; but his son was ordered to remain in attendance upon his Majesty, in which he received high promotion.....[1]" Kalyan Singh died the following year.

The next ruler Rai Singh (1571-1612) was granted by Akbar 52 *Paraganas* comprising parts of Hissar, Ajmer, Bhatner and Surat the income from which was 4,02,06,274 *Dams* per year.[2] He was also a *Mansabdar* of 4000 during Akbar's reign. He was granted the paragana of Bhatner (in 1585), the *Sarkar* of Nagaur (in 1600), and the two *Paraganas* of Shamsabad and Noorpur (in 1604).

It is said that once he incurred the displeasure of the Emperor by not handing over a person, named Teja Bagor, who had insulted Nasir Khan, a father-in-law of Akbar. Consequently, by the imperial orders Bhatner was taken from him and given to his son Dalpat Singh, who later on ascended the *gaddi* of Bikaner.[3] The year after his assuming ruling powers, he aroused the ill-will of some of his Bhati nobles by beginning the construction of a fort in the desert at a place called Chudehr (near the present Anupgarh), to keep them under strict control. It could not be completed as the Bhati Thakur of Kharbara came there with 3000 men and filled in the foundations as soon as they were dug.

During Dalpat Singh's reign Bhatner was entrusted to one Thakur Singh, an old Bania servant of the State, who had 3000 fighting men and controlled 242 villages. It was regarded as the safest place in the State at that time. Dalpat Singh, displeased his relatives and the *Thakurs* of the State, specially his brother Sur Singh whom he deprived of his lands. Sur Singh went to Delhi and succeeded in pursuing the Emperor to instal him on the *gaddi* of Bikaner. The Emperor ordered Zabita Khan to help him. The rival forces confronted each other at Chhapar and Dalpat Singh defeated the Imperial forces in the first encounter but on arrival of re-inforcement from Delhi and due to the treachery of the Thakur of Churu, he was imprisoned and sent to Ajmer. It is mentioned in the *Khyats* that one Thakur Hathi Singh Champawat tried to effect his release by force but his valient

1. Elliot and Dowson, *op. cit.*, Vol. V, pp. 335–336.
2. Powlett : *Gazetteer of the Bikaner State*, reprint (1935), p. 23.
3. *ibid.*, p. 27 and Ojha, *op. cit.*, p. 184 fn.

though reckless effort resulted in all his Rajput companions including Dalpat Singh being killed in the affray in 1614.

Dalpat Singh's successor Sur Singh (1613-31) reigned over the most parts of Sirsa and Hansi and the territories of Bikaner. He loyally served the Emperor throughout his life and on many occasions rendered distinguished services. The two *parganas* of Sirsa and Bhatner were conferred on him as Jagir by Jahangir in 1614, and the *pargana* of Nagaur was given to him in 1627. His successor Karan Singh (1631-69) also distinguished himself by serving the Emperor faithfully.

About 1677-78, when Maharaja Anup Singh (1669-98), the successor of Karan Singh was serving at Adoni as governor, the Bhattis and Thakurs of Kharbara and Raimalwali, in the north of Bikaner (now in Ganganagar district), rebelled against the State. Mukand Rai an officer of the State raised a force of 4,000 men. Alongwith one Bhag Chand Bhati, he marched against the rebels who had assembled in the fort of Chudehr. The State force laid siege which dragged on it for more than two months. Thereafter the rebels were forced, due to the shortage of supplies, to give a fight in which they were defeated by Mukand Rai, despite the timely help received by the rebels from the Johiyas of Lakhvira. The two Bhati chiefs, namely; Jagrup Singh and Bihari Das, were killed in action. In 1678 a new fort was constructed in place of the old one and it was named Anupgarh. Bhag Chand Bhati, mentioned above, was granted the Jagir of Kharbara in lieu of his invaluable help, but the immediate result of this grant was disastrous, as Kharbara was attacked by the son of Behari Das, who was supported by the Johiyas. Kharbara was overrun and all the northern border was laid waste. On this the Thakur of Mahajan, whose estate adjoined Kharbara, represented that if Kharbara were given to him he would extend the boundaries of Bikaner to the banks of Sutlej. The Maharaja acceded to his request and granted him the Jagir of Kharbara. When the son of the former grantee, Bhag Chand, came to know of it he attacked the forces of the Thakur of Mahajan, who was killed in action and his son was interned, by Johiyas, but being a minor, he was released soon after. Later, on attaining majority, he attacked the Johiyas who had killed his father and avenged his father's death by putting to sword many Johiyas in the battle. Since that day, it is said, the Johiyas started paying homage and taxes to Bikaner, though now and then they ineffectively rebelled.

Within a year or two of the aforementioned incident the Johiya Chief of Hissar attacked Sirsa, then held by the Thakur of Bhukarka, who

was killed and the *pargana* was lost for sometime to Bikaner. One Hayat Khan Bhati, who held charge of Bhatner on behalf of the ruler of Bikaner, defected to the Johiyas and proclaimed himself independent in Bhatner and for a time, could not be subdued by the ruler of Bikaner.

In 1730, Maharaja Sujan Singh (1700-35) proceeded with a sizeable force to Nohar to punish the insurgent Bhattis and Johiyas. The Bhattis submitted and paid a *peshkash* of Rs. 20,000. In 1735, Sujan Singh while engaged in settling a dispute between the Thakurs of Bhadra and Bhukarka, at Raisinghpura, breathed his last.

In 1740, Bhim Singh, the Thakur of Mahajan, at the instance of Maharaja Zorawar Singh of Bikaner (1736-46) treacherously killed the Johiya Chief, Mala of Talwara and took possession of the fort of Bhatner and a booty of four lacs of rupees and gold *mohurs*. Bhim Singh, however, appropriated this money for himself. This perfidy enraged the Maharaja who asked one Hasan Khan Bhati to chastise the Thakur. Hasan Khan invaded Bhatner and captured it alongwith some part of the treasure lodged there. The Thakur fled and joined hands with the other discontented Thakurs of Churu and Bhadra. They all conspired with the Jodhpur ruler, Abhay Singh, who in 1740, invaded Bikaner. The fort was besieged. The ruler of Bikaner sought the help of the ruler of Jaipur against Jodhpur. The Jaipur ruler, Maharaja Sawai Jai Singh, sent his troops in aid of the besieged Bikaner which compelled Abhay Singh to raise the siege and hurry off to protect his own territories, from the apprehended invasion of Jaipur troops and the forces of Bakhta Singh of Nagaur. Thus having saved Bikaner with the help of Jaipur, Zorawar Singh was able to punish the refractory Thakurs later on. The Johiyas and Bhattis also continued to give trouble to the Bikaner ruler who ultimately decided to subjugate them and took Hissar in 1745. He died in 1746 at Anuppura (in Bhadra *tahsil*).

During the reign of Gaj Singh in v. s. 1813 (1756 A. D.) some Sikhs started plundering the Nohar *Pargana* and the refractory Thakur of Bhadra also became active. Under these circumstances Gaj Singh went in person to quell the Sikhs and subdue the rebellious Thakur one of whose strong forts was destroyed with shells; but he was later forgiven by the Maharaja. As rebellions were frequent, the ruler prudently decided to raise new forts in that area and consequently the fort of Nohar was built.

In v.s. 1816-17 (1759-60 A.D.) the Johiyas and Bhattis again started giving trouble. The Bhatti leader, Hasan Muhammad, captured

Bhatner while one Daud seized Anupgarh. A strong force was, therefore, sent against them and the territory recovered.

In v. s. 1825 (1768 A. D.) Kamruddin Johiya was commissioned by the Maharaja to retake Sirsa and Fatehabad, and he accordingly captured this territory. The Johiyas, however, again started creating disturbances. In 1773 the Bhattis also again rebelled but were subdued and the Bhatti leader, Muhammad Hussain Khan, presented a tribute of Rs. 40,000 and agreed to pay half the amount of revenue accruing from the territory to the Raj

Gaj Singh died in 1787 and was succeeded by his son, Raj Singh, who remained on the *gaddi* for only some days. Thereafter his son, Pratap Singh, a boy of six years, succeeded him under the regency of his uncle Surat Singh. It is said that Surat Singh strangled him with his own hands and assumed the ruling power himself.

MODERN PERIOD

The situation in which legitimacy wast hwarted by murder, created a favourable ground for plunder and rebellion. Some of the Thakurs like the Thakur of Churu and the Bhatti Thakur Khan Bahadur of Rajpur openly rebelled in 1790 A. D. against Surat Singh. He, personally led his forces to suppress them and exacted enormous amount of money as penalty. The Nahtas (an Oswal clan) of Nohar, due to their seditious conduct, were also punished for treason. To consolidate his position by strengthening his forces and constructing strong forts in his territory, he founded Suratgarh in 1800 A. D. He marched against the Bhattis of Bhatner as they had started creating trouble in the *ilaqa*. Bhatti Zabita Khan put up a strong resistance with 7,000 men, but was defeated in the end with great loss. The Maharaja fortified some places there in the area to avoid recurrence of the trouble. He tried to raise a strong line of forts in the north-west portion of the territory, adjoining the territories held by Daudputras, who used to make inroads, now and then, into the Bikaner territory. In v. s. 1862 (1804-05 A. D.) Bhatti Zabita Khan again became turbulent at Bhatner and, consequently, Amar Chand was sent against him with a strong force which besieged the fort of Bhatner. After five months the Bhatti chief surrendered the fort, which was renamed as Hanumangarh because it was occupied on Tuesday, a day associated with Hanuman, the monkey god of epic lore.

Even such strong measures failed to improve the situation in the territory. Occasionally one or the other of the Thakurs defied the authority

of the Raj, but as they could not act in concert they were individually suppressed. In v. s. 1872 (1815 A. D.), however, a rebellion headed by the Thakurs of Bhadra, Dadrewa, Nimba, Jessana, Rawatsar and Birkali broke out. The Johiyas and Bhattis also lent their support to them. The Bikaner troops tried to suppress the revolt but succeeded only partially. At this time Amir Khan Pindari invaded Bikaner territory (1816 A. D.) and reached Chhapar (in Churu district). The ruler of Bikaner was, therefore, forced to ask for British aid. A treaty was concluded with the British East India Company on the 9th March, 1818 and with the British help the forts of the rebellious Thakurs were acquired one by one and restored to the ruler. The Britishers, however, retained the Bhadra tahsil in lieu of the expenses incurred by them on the troops supplied, but it was restored to Bikaner after four years.

In 1822 Surat Singh put forth the claim of Bikaner State to the villages of Tibi sub-tahsil as part of Bhatner (Hanumangarh), and forty villages (of Sirsa and Fatehabad) adjoining Bhadra. In 1828 Trevelyan, a British officer, was deputed to make enquiries about the force of the claims but the British Government decided not to restore these villages to Bikaner.

After Surat Singh's death (in 1828) Maharaja Ratan Singh (1828-51) had also to deal with the refractory nobles in the State. Some of the Thakurs, particularly the Thakur of Bhadra, plundered more than a hundred villages. The Bhattis followed suit committing depredations in the area independently. Hence the ruler of Bikaner and the British Government decided to establish a special brigade called 'Shekhawati Brigade' to be stationed at Jhunjhunun for keeping peace on the border. The Bikaner State agreed to contribute Rs. 22,000 towards the expenses of the brigade, which tried to suppress the nobles who continued plundering for sometime.

In 1843, the Indian Government decided to establish a line of communication between Bahawalpur (now in Pakistan) and Sirsa (now in Haryana). To give better facilities to trade they also advised the State in 1844 to reduce the transit duties. Ratan Singh agreed to a reduced scale of duties on goods in transit through his territory and also constructed *Sarais* and *Minars* along the trade-route joining Bahawalpur with Sirsa. In 1845, at the outbreak of the Sikh war, Ratan Singh despatched a force for the help of the Indian Government.

After receiving the reports that intruders from Bahawalpur had violated the boundary and were disturbing peace in the territory of the

Bikaner State, Ratan Singh sent a force to drive them away. Small skirmishes continued for some time and in v. s. 1902 (1849 A. D.), an investigation into the Bahawalpur and Bikaner boundary dispute was completed and final decision was taken.

In May 1868 an Assistant to the Agent to the Governor-General was deputed to Sujangarh (in Churu district) and entrusted with the political charge of the State with the object of checking dacoity. For the better administration of the State, a State Council was established in the Bikaner State in 1871.

During the rule of Maharaja Dungar Singh (1872-87) some important reforms were introduced in the State from which the present Ganganagar district too could not remain unaffected. The custom of *Sati* was outlawed in 1872. In 1880 the Settlement of the Tibi *paragana* was completed; in 1881 the Census of the Bikaner State was undertaken as a part of the general Census of India; in 1882 a British Political Officer was posted at Bikaner. In 1884, four *nizamats* were established in the State. The area of this district was grouped in Reni and Suratgarh *nizamats*. The customs department was also set up in 1884. In the same year schools and hospitals on modern lines were established. Railway and irrigation system were started.

This policy of modernisation inaugurated by Maharaja Dungar Singh was pursued by his successor, Maharaja Ganga Singh (1887–1943). In 1899-1900 the young Maharaja was faced with the task of fighting against the appalling famine, called *Chhappania Kal.* He mitigated the hardships of the people by relief measures. He raised the total length of railway from 98 miles (157 kilometres) to 900 miles (1,440 kilometres). He established institutions of local self-government, legislative assembly, High Court and a College for higher education.

His monumental work is the construction of the Gang Canal, which is not only a great relief for the people of the Ganganagar district, but to the whole of Rajasthan. Ganganagar district has become a 'Granary of Rajasthan'. On 26th October, 1927 Lord Irwin, the then Viceroy, opened the Gang Canal which was named after the ruler. A fair number of people from the southern parts of the Punjab migrated to this area for colonising it. The administration tried to provide all types of facilities. Due to the advent of water this area was transformed into a rich land.

Ganganagar remained the headquarters of a division till 1949 when the State was merged into Rajasthan. After merger, Ganganagar

division was regrouped to form a district and it became the headquarters of the Collector. The Bikaner State, as a whole, was grouped into a Division comprising three districts–Ganganagar, Churu and Bikaner, the last being the headquarters of the Commissioner. In 1961, the post of the Commissioner was abolished. Since then Ganganagar is recognised as one of the twenty-six districts of the State.

POLITICAL AWAKENING IN THE DISTRICT

The most notable aspect of modern history, is the political awakening in the district. The growth of political consciousness in the district is linked with that of the Bikaner district, as it had been a part of the erstwhile State of the same name.

Maharaja Ganga Singh (1887-1943), who ruled the State as a benevolent despot, established in 1913, a Representative Assembly (later renamed as Legislative Assembly) with an initial membership of 35 (nominated and elected both). Though it was invested with the powers of legislation, deliberation and interpellations, but special prerogatives were reserved for the ruler.

After the emergence of Mahatma Gandhi on the political scene of India, his *Satyagrah* and *Khadi* movement started a wave of political consciousness which spread throughout the length and breadth of the country including the princely States. In the Bikaner State too, some political workers of Rajasthan tried to enter the State, but they were not allowed. At some places some social workers tried to popularise *Khadi* and *Swadeshi* goods. The Bikaner Government banned the entry of political workers from outside in the State.[1]

People had complaints against the Bikaner State Savings Bank and pamphlets depicting the financial condition of the State were published. One pamphlet, published by the State's People Conference, was circulated among the members of the British Parliament at the time when the Maharaja was in London.[2] Some people, suspected to be the authors of the pamphlet, were arrested after the return of the Maharaja from abroad.

In 1932, a statutory measure, known as the Public Safety Act, was passed which prohibited any agitation among labourers and entry in the State of any book or newspaper by post or mail, containing matter likely to create disaffection against the ruler or his government. It also prohibited

1. Thakur Desraj: *Chaudhari Harish Chandra Nain*, 1964, pp. 206–207.
2. Biswas, C., *Bikaner the land of the Marwaris*, pp. 78–79.

public meetings without the prior permission of the State authorities. Under this Act many deportations of several persons and confiscations of property were effected.[1]

Several articles appeared in the *Riyasat* and the *Princely India* published from Delhi, criticising the Bikaner administration. In a public meeting at Churu, speeches were delivered criticising the policy of the State in enhancing the rents etc. and exposing the high-handed policy of the Maharaja. Eight persons were arrested on 14th January, 1932. They were prosecuted for sedition and their trial lasted over two years.

The news of the trial spread like fire in other parts of India. In Bombay some Rajasthanis held a meeting on 23rd September, 1933 and decided to form a committee to be known as the Bikaner Political Case Committee.[2] It conducted a wide spread campaign in British India against the persecution, ill-treatment and denial of justice to the political workers. On 17th December, 1933, 'Bikaner Day' was observed at many places. Jai Narain Vyas, an eminent political worker of Rajasthan, organised a 'Defence Committee' for the purpose which held meetings explaining the actual political conditions prevalent in the State. At last judgement was delivered on the 15th January, 1934. Seven persons, out of the eight accused, were sentenced to imprisonment of terms ranging from six months to three years. The new reading rooms and libraries, which were the rendezvous of political enthusiasts, were closed but the Arya Samaj was permitted to continue its social welfare activities unchecked.

An attempt was made in 1935–36 to set up *Bikaner Rajya Praja Mandal* but it proved abortive due to the repressive policies of the State. A second attempt, made in 1942, to establish Praja Parishad was also smothered to death on the seventh day of its birth by invoking the Public Safety Act.[3] Raghubar Dayal, a political worker was exiled from the State and the *Khadi Bhandars* considered to be centres of political activity were closed under the orders of the State Government.

Maharaja Sadul Singh succeeded Maharaja Ganga Singh in 1943 and released some of the political workers from the jails which indicated his liberal attitude. He could visualised the new trends in the political atmosphere of the country and introduced some reforms in the administrative structure.

1. *Saranghdhardas : Bikaner*, quoted by Biswas, *op. cit.*, pp. 77–78.
2. *The National Call*, 27th September, 1933, File No. 60, Rajasthan State Archives, Bikaner.
3. Biswas, *op. cit.*, p. 86.

In 1944 Mangha Ram Vaid, one of the political workers at Bikaner, opened a branch of the Praja Parishad at Ganganagar. It gave a fillip to political activities in the district. The people were becoming more and more political minded. The peasants and land workers were taking the lead. The conditions of the tenants in the Jagir villages were miserable because the Jaghirdars inflicted all sorts of tyrannies on them. The peasants approached the authorities and later on the Maharaja for the redress of their grievances but met with a cold response. The Praja Parishad, then took up their cause. Then for the first time in the history of Bikaner State, *Kisans*–men and women assembled from all parts of the State-paraded the streets of Bikaner, flying tri-colour flags in their hands and shouting national slogans. On 6th June, 1945, many persons were arrested. Some people undertook 'fast unto death' headed by Mangha Ram Vaid. The President of the Praja Parishad was also arrested alongwith other members of the working committee. It was alleged that the members of the families of the arrested workers were subjected to all sorts of indignities by the administration and harassed by the police. No legal aid was made available to them. Even those who attempted to defend them were served with externment orders.[1] The *Kisans* of Dudhva Khara (in Churu district) were also lathi-charged and as a result several of them sustained severe injuries.

On 30th June–1st July, 1946 the first conference of the political workers of Bikaner State was held at Raisinghnagar.[2] The people paraded the streets with tri-colour flags in their hands, but the police stopped them. The processionists were lathi-charged resulting in a scuffle between the people and the police. Firing was ultimately resorted to in which one person was killed. There were protest meetings and processions all over the State. Some agitators alongwith their leaders were interned.

Other small political organisations like *Praja Sevak Sangha, Praja Mandal, Muslim League* and *Jat Sabha* cropped up in the latter half of the year 1946. It was believed that the State encouraged these organisations in order to weaken the hold of the *Praja Parishad.*

In such circumstances it was thought expedient by the Maharaja to proclaim on 31st August, 1946 that a Constitution-making body would be formed for drafting a Constitution for the State for introducing a responsible government Accordingly, a Committee was set up for framing the Constitution. These moves were occassioned by the political events in the British India where Pt. Jawahar Lal Nehru had formed

1. Biswas, *op. cit.*, p. 89.
2. *ibid.*, p. 90.

the Interim Government of India and the British Government had declared their intention to quit the country by June 1948.

On fourth December 1947, the Maharaja explained the provisions and structure of newly framed Constitution. As an interim measure (for forming a responsible Government), a popular ministry composed of equal members from both the 'nobility' and the 'people' was set up on 18th March, 1948. With Kunwar Jaswant Singh of Daudsar as the Prime Minister, four persons from *Praja Parishad*, viz., Chaudhari Hardatt Singh, Chaudhari Kumbha Ram, Acharya Gauri Shankar and Sardar Mastan Singh were taken in the ministry. Chaudhari Hardatt Singh was appointed Deputy Prime Minister and the remaining three were allotted the portfolios of Revenue, Education and Local Self-Government respectively.[1]

The newly constituted ministry tried to run the government under the aegis of the ruler of the State, but it could not make much head-way because the feudal elements and the representatives of the people could not get on well together. The popular ministers, therefore resigned in September 1948. Till the appointment of new Prime Minister Jaswant Singh was asked by the Maharaja to continue.

During this interval, the political scene in free India was changing fast. Sardar Patel's policy of integrating the princely States into viable political units was beginning to take shape. The Maharaja accordingly agreed to merge the State into the United State of Greater Rajasthan and thus the area of the Ganganagar *Nizamat* alongwith the other parts of the erstwhile Bikaner State became a part of the new State of Rajasthan. Ganganagar area with some minor adjustments was carved as a district on 30th March, 1949.

1. The five seats allotted to nobility and other interests were occupied by (1) Kunwar Jaswant Singh (Prime Minister), (2) Seth Kushal Chand Daga, (3) Shri Surya Karan, (4) Ahmad Bax Sindhi and (5) Thakur Kumbher Singh.

CHAPTER III

PEOPLE

POPULATION

According to the Census of 1961, the total population of the Ganganagar district was 10,37,423 of which the males numbered 5,63,231 and the females 4,74,192. The distribution of this population in sub-divisions and tahsils is shown in the table below:

Sub-division	Tahsil	Population (1961)		
		Persons	Males	Females
Ganganagar		204,528	111,715	92,813
	Ganganagar	204,528	111,715	92,813
Hanumangarh		290,228	159,918	130,310
	Hanumangarh[1]	203,131	111,721	91,410
	Suratgarh	87,097	48,197	38,900
Karanpur		188,915	101,053	87,862
	Karanpur	99,513	53,131	46,382
	Padampur	89,402	47,922	41,480
Nohar		218,784	117,056	101,728
	Bhadra	95,141	50,992	44,149
	Nohar	123,643	66,064	57,579
Raisinghnagar		134,968	73,489	61,479
	Anupgarh	48,503	26,604	21,899
	Raisinghnagar	86,465	46,885	39,580

Variation in Population

The population in the district has increased more than six times (623.23 per cent) in the present century, as compared to an overall increase of 95.8 per cent for Rajasthan and 85.94 per cent for the whole country over the same period. The district has thus registered a phenomenal

1. Hanumangarh tahsil has been, recently, divided into four tahsils, namely, Hanumangarh, Sadulshahr, Tibi and Sangaria. Thus the district has now, in all, twelve tahsils.

increase in population during the current century. The last decade ending 1961 also saw an increase of 64.64 per cent over that of 1951, and this represented a higher percentage increase than any other district of Rajasthan. The decade variation for Rajasthan was 26.20 per cent and for whole of India 21.50 per cent.

From the study of the variations in population in the district since 1901, it will be seen that during the first decade there was an increase of 43.66 per cent. The second decade, however, witnessed a decrease of 17.22 per cent, but after 1921, there has been an unprecedented increase in the population of the district: 102.49 per cent in the period 1921-31, 54.58 per cent in the period 1931-41, 18.01 per cent in the period 1941-51 and 64.64 per cent in the period 1951-61.

A comparative study of the variation in population at each enumeration since 1901, is shown in the table given below:

Ganganagar District[1]			Percent variation	
Census year	Persons	Percent variation	Rajasthan[2]	India[3]
1901	143,442	—	—	—
1911	206,068	+43.66	+6.70	+5.73
1921	170,593	-17.22	-6.29	-0.31
1931	345,436	+102.49	+14.14	+11.01
1941	533,974	+54.58	+18.01	+14.22
1951	630.130	+18.01	+15.20	+13.31
1961	1,037,423	+64.64	+26.20	+21.50

The rapid increase of 43.66 per cent in population during the first decade of the present century was due partly to improved methods of enumeration but chiefly to the absence of famine, the opening up of the country to commerce by means of railways, and the introduction of a better system of administration. Among the reasons contributing to the fall in population during the second decade, mention may be made of the

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables,* p. 95.
2. *ibid.*
3. *Census of India, Paper No. 1 of 1962, 1961 Census, Final Population Totals,* p 9.

epidemics of influenza, plague and small-pox. The decade between 1921 to 1931 witnessed a stupendous rise in the population of the district, which was more than doubled, owing to the construction of the Gang Canal. The Gang Canal Colony attracted a considerable number of persons from the adjoining States of Punjab and Uttar Pradesh as well as from other parts of Rajasthan. Since then there has been a steady rise in the population of the district. The Census of 1951, however, revealed an increase of only 18.01 per cent over that of 1941, a rate which was far below the rate of increase in the preceeding decades.The Census of 1951 also records the rehabilitation of 99,464 displaced persons but this increase was largely neutralised by the emigration of the majority of the Muslim population of the district to Pakistan. During the period 1951-61 the rate of population increase in the district was highest in the State because of the opening of Bhakra Canal and the growing industrialisation of the district owing to the availability of electric power from the Bhakra project.

According to the 1961 Census the district has a density of 51 per square kilometre as against 60 for the State and 148 for the country, and ranks twenty first among the districts of Rajasthan in this regard. It is, however, more than twelve times that of Jaisalmer, the desert district which inhabits only 4 persons per square kilometre, the lowest density of population in the whole of Rajasthan.

The population per square mile in rural areas (113) is lower than the district average (130). The higher concentration of rural population is in Karanpur tahsil (279 per square mile). Urban density per square mile is 1,337, the figures for individual towns being Ganganagar 27,172, Karanpur 14,260, Gajsinghpur 13,003, Sangaria 1,271, Hanumangarh 5,740, Raisinghnagar 33,904, Suratgarh 370, Nohar 709, Bhadra 633 and Anupgarh 56.

The following table shows the density of population per square mile for each tahsil and town of the district according to the 1961 Census[1]:

Tahsil	Town	Density		
		Total	Rural	Urban
1	2	3	4	5
Anupgarh		37	37	56
Bhadra		138	126	633
Ganganagar		380	262	27,172

1. *Census of India, 1961, Vol. XIV, Rajasthan, Pt. II-A, General Population Tables,* p. 21.

1	2	3	4	5
Hanumangarh		178	156	2,739
Karanpur		315	279	14,260
Nohar		73	66	709
Padampur		276	261	13,003
Raisinghnagar		169	151	33,904
Suratgarh		59	54	370
	Anupgarh	—	—	56
	Bhadra	—	—	633
	Gajsinghpur	—	—	13,003
	Ganganagar	—	—	27,172
	Hanumangarh	—	—	5,740
	Karanpur	—	—	14,260
	Nohar	—	—	709
	Raisinghnagar	—	—	33,904
	Sangaria	—	—	1,271
	Suratgarh	—	—	370
Ganganagar District		130	113	1,337
Rajasthan State		153	130	1,548
India[1]		358	297	5,305

The district had a density of 65 per square mile in 1941 and of 77 in 1951.[2]

Sex Ratio

According to 1961 Census the district has 842 females for every 1000 males. The ratio in rural areas is 852 per 1,000 males and in urban areas 784. This is in consonance with the general deficiency in the number of females throughout the State which was 908 females per 1,000 males on the average (913 in rural areas and 882 in urban areas).[3] The following table shows sex-ratio in the district for every census year since 1901.[4]

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 229.
2. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar*, part I, p. 1.
3. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 15.
4. *ibid.*, p. 90.

Census Year	Females per 1,000 males		
	Total	Rural	Urban
1901	853	847	975
1911	818	813	977
1921	857	851	936
1931	797	801	752
1941	814	818	773
1951	836	847	776
1961	842	852	784

The following table shows the number of females per 1,000 males in the towns of the district.[1]

Town	Femals per 1000 males
Ganganagar	755
Hanumangarh	783
Nohar	865
Karanpur	850
Bhadra	846
Raisinghnagar	739
Suratgarh	790
Sangaria	765
Anupgarh	838
Gajsinghpur	776

Age Groups

According to the Census of 1961 the largest number of people (both males and females) were in the age group of 0–4 years. In fact, those under nine years of age accounted for about 49.3 per cent of the total population.[2] There were 191 centenarians, 86 males and 105 females.

1. *Census of India, Paper No. I of 1962, 1961 Census, Final Population Totals*, pp. 231-35.
2. *Census of India, 1961, Volume XIV, Rajasthan, Part II-C (i), Social and Cultural Tables*, p. 85.

Of the males, 67 were aged 100, three aged 101, three of 102 years old, two of 103 years, one of 104, two each of 105, 107, 108, 110 and one each of 112, 120. Of the females, 86 were 100 years of age, three of 101, two of 102, one of 104, ten of 105, two of 110 and one of 120.[1] The various age groups in the population of the district are shown below[2] :

Age Group	Persons	Males	Females
All ages	1,037,423	563,231	474,192
0–4	182,704	93,078	89,626
5–9	162,676	86,155	76,521
10–14	122,707	65,937	56,770
15–19	82,274	46,097	36,177
20–24	93,839	49,115	44,724
25–29	90,487	49,880	40,607
30–34	68,902	38,673	30,229
35–44	95,581	53,370	42,211
45–59	87,326	51 375	35,951
60+	49,528	28,863	20,665
Age not stated	1,399	688	711

It would be observed that males predominate in all these groups. The details of population in rural and urban areas arranged according to age groups as also the distribution of the population in accordance with single year age returns are given in Appendices I to III at the end of the chapter.

Age and Civil Condition

According to a sample survey, conducted at the time of 1951 Census, early marriages were common in the district. In the rural areas, 466 females out of a sample population of 5,059 and 117 males out of 6,350 in the age group of 5–14 were married, excluding one male and three females widowed or divorced. In the urban areas also 122 out of 694 females and 50 males out of 1,087 in the same group were married excluding two females widowed or divorced in this very age group. The age

2. *Census of India, 1961, Rajasthan, District Census Handbook, Ganganagar District*, p. 227.
3. *ibid.*, p. 221.

group-wise marital condition of the sample population in 1951 for the district as a whole is given below[1] :

Age group	Sample population		Unmarried		Married		Divorced or widowed	
	Males	Females	Males	Females	Males	Females	Males	Females
0	1,170	1,162	1,170	1,162	—	—	—	—
1–4	3,823	3,470	3,823	3,470	—	—	—	—
5–14	7,437	5,753	7,269	5,160	167	588	1	5
15–24	4,969	4,396	2,592	491	2,347	3,828	30	77
25–34	3,979	3,238	415	118	3,460	3,008	104	112
35–44	3,182	2,245	120	7	2,876	1,955	186	283
45–54	1,820	1,490	114	3	1,524	1,098	182	389
55–64	1,297	1,012	70	3	867	534	360	475
65–74	556	431	42	—	301	118	213	313
75 & over	188	221	15	—	73	32	100	189
Age not stated	2	—	2	—	—	—	—	—
Total	28,423	23,418	15,632	10,414	11,615	11,161	1,176	1,843

According to the Census of 1961, however, there was no married person below the age of 14. This clearly is an indication that child marriages are no more favoured by the people. The largest number of widowed males (3,810) and females (5,128) was in age group of 70 and above of rural population. The largest number of separated or divorced males (70) was, again, in the rural areas and was in the age group 25–29, and the highest number of separated or divorced females (50) in the age group 10–14. Details about age and marital status according to 1961 Census are given in the Appendix IV at the end of the chapter.

Rural and Urban Population

According to 1961 Census 887,471 persons (479,181 males and 408,290 females) live in rural areas.[2] The population of this district is predominantly rural in character as 85.55 per cent of the people live in rural

1. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar*, Part I, pp. 77–79.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II–A, General Population Tables*, p. 19.

areas and only 14.45 per cent in urban.[1] In 1951 the rural population constituted 85.57 per cent of the total population while urban areas accounted for the remaining 14.43 per cent.

The table below shows the rural urban break-up of the population alongwith comparative figures for the whole of Rajasthan State :

		Percentage to total population	
		Rural	Urban
Ganganagar District	1951[2]	85.57	14.43
	1961[3]	85.55	14.45
Rajasthan State	1951[4]	83.74	16.26
	1961[5]	83.72	16.28

The village lands in the district vary from a few hundred to several thousand hectares, each of which is apportioned to a single village. The revenue unit of area is taken as the Census village. Generally, the whole population lives together in the village itself, which is situated, in most of the cases, in the centre of the area. There are various types of villages. In the *Barani* area a few villages are walled and fortified, a survival of the tempestuous days from 14th to 18th centuries. Elsewhere, the fortifications disappear and the houses are closely packed together within streets with no intervening spaces for orchards or gardens. The area of the village *abadi* is usually five per cent of the total area, the rest of which is cultivated or used as a pasture. There are sometimes hamlets or *Dhanis* subsidiary to large villages. The villages in the canal colony are called *Chaks* and are situated on the land earmarked for the habitation. They contain spacious houses constructed in a planned manner. At some places, the houses, while still made on a common site, are well separated, and most of them stand on their separate sites. At the entrance of most of these villages are to be seen huts of Harijans, the *Dheds*, the *Chamars* and others living cramped up at the outskirts of

1. *Census of India, 1961 Vol.XIV, Rajasthan Part II-A, General Population Tables*, p.15.
2. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar*, Part I, p. 11.
3. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A. General Population Tables*, p. 15.
4. *Population Statistics, (Provisional) 1961-Rajasthan*, p. 7.
5. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 15.

the villages in their secluded and humble quarters, performing scavenging duties from times immemorial but who now constitute the landless agricultural labour. In the middle of the village live cultivating farmers, the land-holders and other affluent members of the village community.

In addition to the inhabited villages, there are often a large number of places which, though uninhabited, are designated as separate villages in the revenue record. Sometimes a populated village site is abandoned by the inhabitants for one reason or the other, and though the people may have migrated to another neighbouring spot, the old village continues to exist as a separate entity. In certain cases a large acreage of waste land is brought under cultivation and the peasants set up their dwellings there. This habitation is given a name and an auxiliary village, so to say, is thus formed. The inhabitants continue to maintain their connection with the parent village. The name of this village is very often prefixed or suffixed with the word *Dhani*, such as *Dhani Kheta*, *Dhani Lal Khan* and so on. Another way to name such a village is by adding the suffix *Bas* or *Was* like Dungar Bas, Lakhan Was, Babal Was, etc. Sometimes the name of the parent village ends with the word *Bari* (Bigger) and the name of its subsidiary village is affixed to the word *Chhoti* (smaller) for example Chanderi Bari and Chanderi Chhoti. The name of the predominant community residing in these villages is also, in certain cases, suffixed to the existing nomenclature such as Pakka Sarnan and Pakka Bhadwan.

Towns

As a large percentage of the population of the district is engaged in agriculture, the number of towns is very small. Most of these towns have come into existence after the construction of Gang Canal. In the Canal Colony, *Mandis* or agricultural markets were established so that the farmers may sell their produce and may carry on their petty commercial transactions. As the headquarters of the administrative officers were also kept in these *Mandis*, it gave them more importance and gradually they emerged as towns. The population of these towns rose rapidly because of various other factors also, such as, the growth of industries and influx of refugees from West Pakistan. Number of towns in the district as they developed in the current century has been given in the following table.[1]

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*. p. 10.

Census Year	No. of towns
1901	2
1911	2
1921	3
1931	5
1941	6
1951	11
1961	10

There were 11 towns in the district in 1951, but the number was reduced to ten in 1961.[1] Hindumalkot, which was classified as a town in 1951, was declassified as rural in 1961, owing to the changes in the definition of an urban area.[2]

The rank of these towns in respect of population in Rajasthan has been shown in the table below.[3]

Town	Tahsil	Rank in population
Anupgarh	Anupgarh	145
Bhadra	Bhadra	85
Gajsinghpur	Padampur	137
Ganganagar	Ganganagar	8
Hanumangarh	Hanumangarh	37
Karanpur	Karanpur	76
Nohar	Nohar	55
Raisinghnagar	Raisinghnagar	91
Sangaria	Hanumangarh	104
Suratgarh	Suratgarh	98

1. One of the criteria for a place to be treated as a town in the 1961 Censns was a population of 5000 or over. But for various reasons some places with qualifying population were not treated as towns.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Popultion Tables*, p. 9.
3. *Ibid.*, pp. 130-132

More details about the towns regarding population in 1961, variation since 1901, status, area, etc. are given in the Appendix V at the end of the chapter. The following table shows the categorywise classifications of the towns since 1901.[1]

Town	1901	1911	1921	1931	1941	1951	1961
Anupgarh	—	—	—	—	—	VI	VI
Bhadra	—	—	VI	VI	VI	V	IV
Gajsinghpur	—	—	—	—	—	VI	VI
Ganganagar	—	—	—	V	IV	III	II
Hanumangarh	—	—	—	VI	V	V	IV
Hindumalkot	—	—	—	—	—	VI	—
Karanpur	—	—	—	—	V	V	IV
Nohar	VI	V	V	V	V	IV	IV
Raisinghnagar	—	—	—	—	—	V	V
Sangaria	—	—	—	—	—	VI	V
Suratgarh	VI	VI	VI	VI	V	V	V

At the time of the last Census of India (1961) there were two towns in the district which had a population which was below the qualifying number of 5,000 viz., Gajsinghpur with a population of 4,681 and Anupgarh with a population of 2,294.[2]

Villages

Of the 1,538 villages in the district Revenue Records, 341 are uninhabited.[3] It would be significant to note that after the opening of the Gang Canal the number of villages had increased from 231 in 1921 to 900 in 1937.[4]

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, pp. 127-128
   The basis of classification is as follows :

I	Population	100,000	and	above	II	Population	50,000	to 99,999
III	,,	20,000	to	49,999	IV	,,	10,000	to 19,999
V	,,	5,000	to	9,999	VI	,,	Less than	5,000

2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, pp. 55 and 146.
3. *ibid.*, p. 113
4. *Four Decades of Progress in Bikaner, 1937.*

As stated earlier, the population of the district is predominantly rural in character. Villages having a population of less than 500 account for largest percentage (28·29) of the total population while the smallest percentage (1·94 per cent) of the total population live in villages having a population between 5,000 to 9,999. This is evident from the following table.[1]

Population Range	Percentage of No. of villages in this class to total No. of villages	Percentage of population in this class to total population
Less than 500	64·37	28·29
500 to 999	20·87	25·13
1,000 to 1,999	10·40	24·35
2,000 to 4,999	4·16	20·29
5,000 to 9,999	0·20	1·94

It also shows that a majority of villages (64·37 per cent) have a population of less then 500 while only 0·20 per cent villages have a population between 5,000 to 9,999. The classification of villages by population is given below[2]:

	Less than 500	500 to 999	1000 to 1999	2000 to 4999	5000 and above
Number of villages	990	481*	—	64	3
Population					
Males	135,584	236,715*	—	97,410	9,472
Females	115,523	202,377*	—	82,647	7,743
Percent share of the total number of villages	64·37	20·87	10·40	4·16	0·20
Percent share of the total population	28·29	25·13	24·35	20·29	1·94

As mentioned earlier, the main criterion for classifying a place as a town is that it should have a population of 5,000 and over. There are,

*These figures are for the category 500–1,999.

Separate figures for the constituent categories are not available.

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II–A, General Population Tables*, p. 106.
2. *ibid.*, p. 107.

however, three places, which have a qualifying population but which otherwise possess rural characteristics and have, therefore, been classified as villages. Details of these villages are given below[1]:

Name of villages	Tahsil	Population (1961)
Lalgarh	Ganganagar	5,246
Surewala	Hanumangarh	5,560
Rawatsar	Nohar	6,409

A table showing for each tahsil, the number of inhabited villages, the total rural population, number of villages according to population category and population in each class of village, is given in the Appendix VI.

Migration

In earlier times, famine was the main reason for efflux of population from the State. During the famine of 1867 a considerable part of population of erstwhile Bikaner State shifted to neighbouring areas. At the time of the last great famine of 1899–1900, the State lost 22 per cent of its population due to emigration.[2] Since the advent of the Gang Canal famine is no longer the terryfying spectre which drives people from their hearths and home. On the other hand canal colony area of the district has attracted a large number of immigrants from the adjoining State of the Punjab. During the decade between 1921 to 1931 in the Gang Canal area alone the population had increased more than five times, from 28,957 in 1921 to 1,45,259 in 1931.[3] Ganganagar, which was a small village with a meagre population of 1,741 in 1921, emerged as a town with a population of 9,943 in 1931.[4]

Displaced Persons

A large scale emigration, however, took place during the disturbances of 1947. As the district is situated on the Pakistan border, a very large number of refugees from the adjoining Bahawalpur State and West Punjab immigrated to this place. According to the Census of

1. *Census of India, 1961, Vo . XIV, Rajasthan, Part II–A, General Population Tables*, p. 61.
2. Erskine, K. D. *Rajputana Gazetteer, The Western Rajputana States and the Bikaner Agency*, 1909, p. 356,
3. *Four Decades of Progress in Bikaner*, 1937, p. 18.
4. *ibid*,

1951 the total number of displaced persons in the district was 99,464.[1] The influx of refugees had started in 1946 even before the actual partition of the country. A great majority of the displaced persons were agriculturists (74·83 per cent) while the non-agriculturists constituted a minority (25·17 per cent),[2] because the district could offer very few opportunities for economic amelioration to the commercial and industrial classes. Further break up of the displacded persons in the district is given below:

	Persons	Males	Females
Total	99,464	53,193	46,271
Rural	82,209	43,813	38,396
Urban	17,255	9,380	7,875

The exact number of those who left the district after partition is not available, but roughly it can be put around the figures for immigrants. It may, however, be pointed out that a considerable number of Muslims who had left the district returned after the restoration of law and order.

An over-whelmingly large part of the population is, however, indigenous having been born in the place of enumeration or in the distirct itself. The largest number of those who were born outside Rajasthan but within India is from the Punjab and is mostly concentrated in the rural areas. The number of people born outside India, but within Asia, is 1,14,096.[3] Details of the number of people born within the district, State, country, etc. are given in the Appendix VII at the end of the chapter.

According to 1951 Census, 89 foreigners (74 males and 15 females) resided in the district, out of whom 83 (70 males and 13 females) were in urban areas, while in the rural areas their number was 6 (4 males and 2 females). Out of these 47 (34 males and 13 females) were Pakistani nationals, 40 (38 males and 2 females) were Nepalese and 2 (males) were Malayan nationals.[4]

At the time of 1961 Census, there were 29 non-Indian nationals (16 males and 13 females) in the district. The country-wise break up of these is shown as follows[5] :

1. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar, Part I,* p. 95.
2. *ibid.* (Calculated from the above source).
3. *Census of India, 1961, Vol, XIV, Rajasthan, Part II-C (ii), Migration Tables,* pp. 16-17.
4. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagan, Part I,* p. 95.
5. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-C (ii), Migra Tables,tion* pp 4-5.

Total Non-Indian Nationals			Nationals in countries in Asia beyond India (including U.S.S.R)			
			Nepal		Pakistan	
Persons	Males	Females	Males	Females	Males	Females
29	16	13	8	5	8	8

LANGUAGE

Mother tongue

The principal local language of the district, is Rajasthani, which, according to Dr. Grierson's classification, belongs to Indo-European family, Indo-Aryan Branch, Central Group. Including all its dialects, it was spoken by 456,838 persons or 44.05 per cent of the total population in 1961. The next numerically important linguistic group is of those whose mother tongue is Punjabi 285,837 (154,768 males and 131,069 females). Hindi was given as their mother tongue by 179,507 persons (98,679 males and 80,828 females) and Khari Boli was the mother tongue of 100,125 persons (55,489 males and 44,636 females). Sindhi was spoken by 8,791 persons (4,877 males and 3,914 females) and Urdu by 2,738 (1,487 males and 1,251 females).

The principal local dialect of Rajasthani spoken by the people is Bagri Rajasthani, which in 1961 was the mother tongue of 309,267 persons (164,793 males and 144,474 females). The other two dialects were Rajasthani, spoken by 74,243 persons (41,391 males and 32,852 females), and Marwari, spoken by 73,039 persons (39,486 males and 33,553 females).

Bilingualism

As this district is situated on the border of the Punjab and Pakistan, bilingualism is very common especially in the border area. Quite a number of people are conversant with languages other than their mother tongue. Apart from a large number of people who migrated from the adjoining State of the Punjab, at the advent of Gang Canal, the partition of the country brought about one lakh displaced persons from the Punjab and Sindh into this district who spoke their own respective languages. Gradually they picked up the local dialects and similarly the original residents of the district too, acquired some knowledge of the language of their immigrant neighbours. Thus one finds here a large number of people whose principal language is Rajasthani, also knowing other subsidiary languages, viz., Punjabi, Urdu or Sindhi etc. Hindi is understood

by all the classes though it is spoken largely among the educated sections of the society, while the knowledge of English is restricted only to a small minority of highly educated people. Details about the mother tongue and bilingualism in each linguistic group are given in the Appendix VIII at the end of the chapter.

Linguistically the district may be divided into the Gang Canal Colony area and *Barani* area where Punjabi and Rajasthani respectively are the principal languages of the people.In the towns a large majority of people speak Hindi. The trading classes, which earlier used *Mudia* script for maintaining their account books, have now switched over to the *Nagari* script. This has become possible because a large number of people, who join business as career these days, have had formal education, or possess a working knowledge of Hindi.

RELIGIOUS AND SOCIAL GROUPS

Religious Groups

The principal religious groups of the district are Hindus, Sikhs, Muslims, Jains and Christians. The bulk of the population consists of Hindus, their total number at the time of 1961 Census was 7,84,998 (4,27,025 males and 3,57,973 females). In the same year Sikhs numbered 2,14,905 (1,15,769 males and 99,136 females), Muslims 34,891 (18,988 males and 15,903 females), Jains 1,850 (953 males and 897 females) and Christians 750 (478 males and 272 females). The following table shows the number in each religious group and its proportion to the total population of the district in 1951[1] and 1961[2].

Religions	Persons		Percentage to total population of the district	
	1951	1961	1951	1961
Hindus	498,058	784,998	79.04	75.67
Sikhs	110,102	214,905	17.47	20.72
Muslims	20,305	34,891	3.22	3.36
Jains	1,553	1,850	0,25	0.17
Christians	111	750	0.02	0.07
Atheist	—	14	—	—
Buddhists	—	1	—	—
Zoroastrians	1	—	—	—
Religion not stated	—	14	—	—

1. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, 1951, Ganganagar,* Part I,p. 93.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-C (i), Social and Cultural Tables,* pp. 288–289.

Hindus

The Hindus fall into five principal categories, according to the deity they worship. These deities are Shiva, Vishnu, Surya, Ganesh and Shakti. The followers of Vishnu and Shiva predominate numerically. Those worshipping Surya, Ganesh and Shakti are few.

The Vaishnava population is divided into four broad *Sampradayas* (traditional sects). The Ramanuj *Sampradaya*, also known as Shri Sampradaya or Shesh Sampradaya after Vishnu's consort and Serpent-Throne, respectively, believes in *Vishishtadvaita* (modified or qualified monism) school of philosophy. This *Sampradaya* also includes Ramanandi sect. The temples of Sita Ram, Raghunath, Lakshmi Narayan and Narsingh are consecrated by this *Sampradaya*. The Madhava *Sampradaya* believes in *Dvaita* (duality) philosophy. The Vallabh *Sampradaya* believes in *Shuddhadvaita* or pure non-duality and is also knwon as Vishnuswami *Sampradaya*. This *Sampradaya* is devoted exclusively to Radha Krishna. The Nimbarka *Sampradaya* believes in a *Dvaitadvaita* philosophical system (an admixture of monism and duality). The temples of Gopal, Bihari, Banke Bihari, Damodar and Gopi Vallabh etc. belong to this *Sampradaya*.

Shaivism is a cult of monism and is sub-divided into many sects. Gusain, Dashnami, Nath etc. constitute the acknowledged priesthood of Shaivism. Durga is the principal deity of the worshippers of Shakti. Besides, there are family goddesses *(Kuldevi)* and village goddesses *(Gramdevi)*. Within the Vaishnava and Shaiva *Sampradaya* are various *Panths* (schools).

The Hindus of the district do not rigidly follow these sect divisions and this liberal attitude is reflected in their modes of worship. One may find idols of different deities of these sects placed in one temple and the people worshipping them all together without anybody raising an eye-brow.[1] Thus, they celebrate Krishna *Janma Ashtami* (birth of Lord Krishna), *Ram Navmi* and *Shiv Ratri* in these temples with the same unstinted devotion and enthusiasm. Moreover, the ordinary Hindu is, generally, ignorant of or indifferent to the more esoteric doctrines of his religion. He, of course, revers and worships Ram, Krishna, Vishnu and

1. Shri Shankaracharya (8th Century A.D.), the Vedantist, is believed to have introduced the practice of worshipping the five principal Hindu deities (Vishnu, Shiv, Shakti, Surya and Ganesha) in every Vaishnava temple. The mode of worship was known as Panchayatana Puja. This tradition has continued after Shankaracharya and is still followed by almost every orthodox Hindu.

Shiva but beyond the occasional visit to the local *Thakurdwara* or *Shivalaya* or feeding the Brahmans on some auspicious days, he rarely cares to know about the basic tenets of his religion. The trading communities of the towns are more particular about the observance of the Hindu rituals than the peasantry and most of the temples in the district have been constructed with the funds donated by the wealthy traders. The Hindu businessmen in the towns, usually, fix a small amount (about 6 paise on every hundred rupee) called *Dharmada* on the business transactions for religious endowment and this sum is donated to the local temples, *Goshalas* (cow shelters) and *Dharmashalas* (inns).

Practical Religion

The Hindus of the district, as elsewhere regard wells, tanks, rivers, trees, etc. as sacred. Thus the great rivers, Ganga, Jamuna etc. are worshipped and long and arduous pilgrimage undertaken for having the purifying bath. The *Pipal* tree (*Ficus* religiosa) is looked upon with reverence and people worship it by pouring a *Lota* (metal tumbler) of water and by paying obeisance *(Dhok Marna)*. *Tulsi* plant *(Ocimum sanctum)* which is found in most of the houses of the orthodox Hindus, is also worshipped and watered every morning. Then, there are certain semi-human gods like Hanuman (monkey god) and Ganesh (the god with the elephant trunk) etc. The blessings of the latter are invoked before embarking upon any auspicious venture for he is supposed to be endowed with power to remove all obstacles. The cow is sacred to all Hindus and Nandi (Shiva's bull) is frequently sculptured in Shiva's temples. There are also deities of limited sphere of benevolent or malevolent activity. Sitla, the goddess of small pox, is worshipped mostly by women. Khetripal, is another deity who is worshipped by women whose children are sickly. The *Kair (Acacia Catechu)* tree is worshipped for begetting children and the snake god Goga for the cure of snake bite.

Rituals take the form of religion in practice. Fasts are undertaken regularly on particular days of the week accompanied, sometimes, by devotional songs with a view to achieving some long standing desire. Sometimes a *Yajna* is performed in order to procure rain or to stop it, to help the Sun or Moon to ward off the evil influences of demon gods Rahu and Ketu who cause their eclipse, to render earthquakes harmless, to protect oneself against the evil eye, and to propitiate some super-natural powers such as *Shitala* (the goddess of small pox) etc. There is, as a matter of fact, an endless system of rituals which a pious Hindu is supposed to undergo throughout his life cycle. The sacrificial fire *(Yajna)* has now

been, generally, replaced in Hindu ritual by worship *(Puja)*, *Havan*, propitiation of gods by offerings of flowers, fruits, uncooked rice and water.

SIKHS—Sikhism was founded by Guru Nanak who was one of the proponents of the great Bhakti movement of the 15th and 16th centuries that had swept over the whole of India. The word *Sikh* means one who learns or a pupil. It had remained more or less a peaceful sect till the reign of Aurangzeb whose policy of religious persecution had converted them into a militant resistance movement. During this crisis the tenth Guru Govind Singh had called upon all the Sikhs to form them by mutual covenant into a sacred organisation of the select (Khalsa) within which the caste would disappear, each man would become a warrior and would take a vow to fight till death for his Faith. They would call themselves 'lions' each suffixing the word *Singh* to his name. In order to give his followers a distinct character, the Guru prescribed that a Sikh should put on five Ks. viz., *Kesh* (the hair), *Kachha* (the short drawers), *Kara* (iron bangle), *Kirpan* (steel knife) and *Kanga* (comb) and that he should abstain from taking tobacco, and eat no meat except that of animals decapitated by a single blow *(Jhatka)* at the back of the neck. Sikhism believes in one God and condemns the worship of multiple deities. It denounces idolatory and disfavours pilgrimage to Holy Places of Hindus. The sacred book of the Sikhs is called the *Adigranth* and is written in *Gurumukhi* script(meaning what has proceeded from the mouth of the *Gurus)*. When the tenth and the last Guru of the Sikhs, Govind Singh, was lying on his death bed, he abolished the institution of Guru and ordained that in future the *Adigranth* would be the Guru. In latter times a growing tendency towards assimilation with Hinduism began to prevail and many Sikhs accepted the ministrations of Brahmans and made pilgrimages to Hardwar, where the sacred Ganges, leaving the lower hills, starts its beneficent journey towards sea. This tendency is, however, not countenanced by the orthodox sections of the community, who insist upon the strict observance of the principles laid down in the *Adi-Granth*.

MUSLIMS—Of the two principal sects of Mohammadens, Shia and Sunni the latter predominate in the district. Both the sects regard Mohammad Saheb as the Prophet and have the Holy *Quran* as their revealed Book. The principal religious duty enjoined on them is to call prayers *(Namaz)* five times a day. Sunnis perform *Haj* (pilgrimage) at Macca, while Shias go to Karbala. As most of the Muslims live in the villages, there is a large number of *Masjids* (mosques) scattered all over the old villages of the district.

JAINS—Jainism probably goes back to the 8th century B.C., but the historical personality Mahavira, who recast its tenets as a reformer rather than the founder, lived in the 6th century B.C. The name Jainism is derived from Jina, a victor, a designation for one who has obtained deliverance. The Jain traditions mention 24 Tirathankars each of whom preached the doctrine in his own age and the last of them was known to history as Mahavira (his name was Vardhamana). The Jain monks are divided into two sects, Swetambara (white-dressed), and Digambara i. e. naked.

ARYA SAMAJ—It was founded by Swami Dayanand in 1875, and it aimed at religious and social rejuvenation of the Hindus. It puts faith in the revelation and infallibilty of the *Vedas* as the only source of true knowledge and, therefore, the Hindus should study them and mould their lives according to their tenets. This movement which also adopted a programme of social reform like eradicating the untouchability, had become very popular in the Punjab during the last decade of the 19th century, and this district too could not but remain influenced by the teachings of Arya Samaj because of its proximity to that State. The votaries of Arya Samaj are mostly professional people like doctors, lawyers, petty State officials and tradesmen. Arya Samaj *Mandirs* exist in almost all the towns and big villages of the district through which the doctrines of Arya Samaj are propagated. Its role in the eradication of various social evils like Purdah system, untouchability, child marriage and caste rigidity, that were prevalent among the Hindus of the district, can never be underrated.

CHRISTIANS—The two principal sects of the Christians are the Roman Catholics and the Protestants. As the number of Christians is very small, there is no Church in the district.

Social Groups

Caste, as an institution, plays a far less important part in the social life of the district than in the other parts of Rajasthan. Various factors have been responsible for the weakening of its traditional hold on the people. A considerable number of settlers in the Canal colony had come from the Punjab and their number was further augmented by the arrival of the displaced persons from West Pakistan. The caste barriers among these new comers were much less rigid and their liberal approach was bound to influence and alter the social behaviour of the local people. Rapid industrialisation, spread of education and introduction of various legislative measures have further weakened the caste system,

but the age old social classification has not been completely wiped out, especially, in the rural areas as education and liberal ideas can only gradually percolate there.

Among the high caste Hindus, the numerically important social groups in the district are: Jats, Mahajans, Brahmans, Aroras and Rajputs, while the prominent Scheduled Castes and Scheduled Tribes are: Meghwal Chamar, Nayak, Baoris and Majhabis. There is no caste system recognised in Sikh religion, though due to most of the Sikhs having sprung from the main stream of caste-ridden Hindu Society and their continued association with the Hindus, various caste distinctions still exist among them. The important Sikh castes in the district are Jat Sikh, Arora Sikh and Kamboh Sikh. Among the Muslims, Raths and Johias are most numerous.

JATS—Col. Tod considers the Jats to be of Indo-Scythian stock. He identifies them with the Getae of ancient history and is of the opinion that they migrated from Central Asia to India about the time of Cyrus. The date of their settlement in Rajasthan is uncertain.

The Jats of this district are known as Bagri Jats in the adjoining State of Punjab. They are almost all agriculturists, frugal, labourious, skilful and outstanding as cultivators. According to the saying '*Jat Jahan that*' a village inhabited by them is always expected to be flourishing, and they are assisted in the fields by their women and children. It is common saying that "The Jat's baby has a plough handle for a play thing". There is another amusing local proverb that a Persian wheel, and bucket and spout, and a Jat woman are never superfluous, the one fertilises the fields, the other populates the village. Nevertheless, during the princely rule the economic condition of the Jats was miserable as they were exploited by the Jagirdar, the State official and the *Mahajan* (banker) alike. Their condition has, however, greatly improved after the Independence. Jats subscribe to Vaishnava faith and the Brahmans officiate at their ritualistic occasions. They are usually vegetarians, but a meat diet is not tabooed. The most important clans of the Jats are Godara, Punia, Beniwal, Karawarsra, Bhadu and Sahu. In the erstwhile Bikaner State, the Godaras had the privilege of putting the *Tilak* or auspicious mark of installation on the forehead of each new chief of Bikaner.

MAHAJANS—The principal divisions found among the Mahajans of this district are: Agarwals, Oswals, Maheshwaris and Saravgis.

AGARWALS—The Agarwals trace their origin to Raja Agarsen whose capital was at Agroha in the Punjab. It is said that Agarsen had seventeen sons and he wanted to marry them to the eighteen daughters of a Raja named Vasuki of the *Naga* or serpent clan. The eighteenth male sprang out of the body of the eldest son, and thus all the eighteen couples were united, hence Agarwals are divided into 17½ clans; the half section may dine but not marry with others.

OSWALS—Almost all the Oswals are Jains. They are said to be descendants of a number of Rajputs of different clans who were converted to Jainism in the second century, and they take their name from the town of Osi or Osian, the ruins of which are still to be found about 30 miles north of Jodhpur city.

MAHESHWARIS—The Maheshwaris are all Hindus. They trace their descent from the Rajputs, chiefly belonging to the Chauhan, Parihar and Solanki clans. Their name is derived from Mahadeo or Mahesh their tribal deity. They comprise 72 exogamous sections, and live an abstemious life refraining from eating flesh and drinking liquor.

SARAVGIS—The Saravgis are, like Oswals, all Jains. The word is said to mean one who abhors liquor, but according to others, is a corrupt form of *Shravaka*, a lay worshipper. They neither eat nor marry with the Oswals nor engage Brahmans to officiate at their weddings but are served by priests of their own caste. They are strict vegetarians and even forbid the wearing of ivory bracelets by their women.

Most of the Mahajans are engaged in trade and money lending, which has been their traditional occupation and are generally well-off. In some cases they have also acquired land from impoverished land-owners.

BRAHMANS—The Brahmans in the district have mostly taken to trade and agriculture and only a few perform priestly duties. Pushkaranas, Paliwals and Gaurs are some of their important castes.

PUSHKARNAS—The Pushkarnas are said to derive their name from the holy lake of Pushkar near Ajmer, but this tradition is not

universally accepted. They have fourteen *Gotras* and eighty-four exogamous clans, some of them being hypergamous, of which the most notable are Vyas, Kalla, Bohra, Purohit and Upadhyaya. The Pushkarnas were generally in the service of the erstwhile Bikaner State. Their marriages ceremonies usually take place on one and the same day in the year. They exhibit inordinate clan solidarity as even on the death of a remote kinsman, they become *bhadra*, i.e. go into mourning, with face and head shaved clean except for the scalp-lock.

PALIWALS—The Paliwals take their name from the town of Pali which they held in grant from the Parihar Chiefs of Mandor. They do not observe the festival of Rakhi on the full moon of the month of *Shravan* (July-August) because their ancestors were said to have been killed in large number in an encounter on that day. They worship among other things, the bridle of a horse on the Dussehra, probably, in memory of their former status as warrior-priests.

GAUR BRAHMAN—The geographical divisions of Gaur Brahmans are Panch Gaur (Saraswat, Kanyakubja, Maithils, Gaur and Utakal) of North India, and the Panch Dravid (Tailang, Maharashtra, Karnatak, Dravid and Gurjar) of South India, the Narmada forming the boundary line between the two. As regards inter dinning and inter-marriage, the Panch Gaurs keep themselves entirely aloof from the Panch Dravids. The first four sects among the Dravid Brahmins may dine together, but do not inter-marry while the Gurjars (or Gujratis) keep secluded indentity. Only the Panch Gaurs are found in the district.

ARORAS—The Aroras claim to be of Khatri origin and they follow some of the Khatri divisions. Sir George Campbell is of the opinion that the two belong to the same ethnic stock.[1] They say that they became outcaste from the main Khastriya stock to save their persecution by Parasuram by denying their caste and describing it as *Aur* or another, and thus came to be called Aroras.[2] Some of them fled towards north and some southward, and hence the two great sections of the caste, Uttaradhi and Dakhana. But it has also been suggested with greater probability that, as Multani and Lahori Khatris are the Khatris of Multan and Lahore, so Aroras are the Khatris of Aror the ancient capital of Sindh,

1· Ibbetson, Sir Denzil, *Punjab Castes*, p. 251.
2. *ibid.*

now represented by Rori.[1] The number of clans is enormous, viz., Ahujas, Nagpals, Munjals, Chugs and Sachdeos etc. and many of them are found in both the sections. All Aroras are said to be Kasab *gotra*. The Utradhi and Dakhana did not intermarry during the former days but this barrier has been broken in recent times. Even Aroras and Khatris now intermarry. The clans are as usual exogamous. The Utradhi women wear red ivory bracelets, while the Dakhana women wear white ivory bracelets. The population of Aroras in the district has greatly increased after the partition of the country, when the Aroras of the adjoining State of Bahawalpur migrated to this district. They are primarily traders but some of them are also engaged in agriculture. There is a separate temple of the Arora community at Ganganagar built by Arorabans Sabha of the town. Besides the idol of Raghunathji, there is a *Shivalaya* (abode of Lord Shiva) inside the temple. The *Granth Sahib* of the Sikhs is also placed in the temple as a large number of Aroras give the same reverence to the *Granth* as they give to the *Gita* or the *Ramayana*. This may be due to their long associations with the Sikh religion in the Punjab.

BISHNOIS—Bishnois derive their name from Vishnu as they lay great emphasis on its worship[2]. They embraced 29 articles of their faith at the instance of a Panwar Rajput ascetic of village Pipasar (Nagaur district), named Jhambhoji towards the end of the 15th century. Originally, the Bishnoi sect adopted a cosmopolitan spirit and 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: Beniwal, Godara, Punia, Sahu and Bhadu. Their chief occupation is agriculture and they are good at that. They are noted for their strength, hardihood and longevity. A Bishnoi can easily be recognised by his typical features. They are strict vegetarians and will not assist or favour even

1. Ibbetson, Sir Denzil, *Punjab Castes*, p. 251.
2. Dr. Hira Lal Maheshwari, *Jambhoji, Vishnoi Sampradaya Aur Sahitya*, Vol. I, Calcutta, 1970 (D. Lit. thesis for the University of Rajasthan), p. 437.

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 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.

RAJPUTS—There are three great divisions of Rajputs, namely the Surajbansi or Solar race, the Chandrabansi or lunar race and the Agnikulas or fire clans. In the solar group are the Rathors, the Kachwahas and the Sisodias. They worship Mother Goddess, the shield, the sword, the dagger and the horse. The Rajputs of this district are mostly Rathors, as the rulers of the erstwhile Bikaner State belonged to this clan. The main sects of the Rathors in the district are the Bikawat, the Bidawat and the Kandhalot, named after Rao Bika the founder of the Bikaner State, his brother Bida, and his uncle Kandhal respectively. They are further divided into a number of branches such as Ratan Singhot, Sarangot, Kishan Singhot, Kesho Dasot, Manohar Dasot, etc. A large number of the Rajputs of the district are serving in the armed forces and many of them have been allotted lands as ex-servicemen in the Canal Colony. But they seldom till the land themselves and mostly depend on their tenants or *Siris*.

SCHEDULED CASTES—The numerically important Scheduled Castes in the district are described in the following paras. The number of Scheduled Tribes is quite insignificant and they need not, therefore, be discussed here. A detailed list of these castes and tribes is given in the chapter entitled 'Other Social Services'.

MEGHWALS—The Meghwals trace their descent from a Brahman saint called 'Megh'. Their traditional occupation was the removal of dead animals and skinning them. Those of them who engaged themselves in this profession 'were termed as *Dedh*. They now live on agriculture and agricultural labour. It is said that during the medieval times when Marwar was overrun by foreign invaders a number of Rajputs, Jats and Charans proclaimed themselves to be Meghwals to save their skin and took to agriculture. Garuda Brahmans officiate at their ceremonies. Remarriage of widows is current among them as in other communities of similar social status. They are the followers of Ramdeoji and accordingly bury their dead. Their family goddess is Khetla Mata. *Tulsi* plant is worshipped by Meghwal women as is common amongst all other sects of Hindu community.

CHAMARS—The word Chamar comes from the Sanskrit term Charmakars, a worker in leather and hides. The Chamars claim their origin from Brahmans and cite some mythological stories as to how they became degraded. According to one, seven Brahman brothers were cooking their food when a calf accidently fell in the fire and died. After a great deal of discussion as to who was to remove the carcass, the youngest brother volunteered to carry out the job. The poor fellow was, however, excommunicated by others for undertaking the onerous, though unpleasant, duty which others had refused to do. In course of time the progeny of the youngest brother formed itself into a separate community. On their own they took to the profession of the cobbler and were called Chamars. The Chamars are divided into a number of endogamous sub-castes such as Bhola, Purbia, Jatia, Baranjia, Jangad and Hewal. These sub-castes are further divided into exogamous *Gotras* some of which are: Bamania, Honawati, Rathor, Hiwaya, Parihar and Rangoda etc. The Chamars of the district carry on leather work and deal in hide and skin.

NAYAK OR THORI—The word Nayak has its origin in Sanskrit where it means a commander. The Nayaks claim descent from the historic Suryavanshi Rajputs and specifically from king Ajaypal. This claim of the Nayaks has been acceded to by various scholars who believe that during the medieval times, the ancestors of the present Nayaks occupied posts of some responsibility in the service of the Rajput princes of Rajputana. The frequent onslaughts of Muslim invaders disheartened many of them, who, to save their skin and hearths and homes from being outraged, took shelter in the remote places, where they got mixed up with primitive communities, acquired their habits and customs and became their leaders or Nayaks. No historical verification of the above facts is, however, available. The word Thori which is another name for the Nayaks, is used in a derogatory sense, equivalent almost to an abuse, by people belonging to higher castes. The Nayaks are divided into 84 *gotras*. Till recently the Nayaks have been working as *syce* or grooms attending on horsemen. Now they work mostly as landless labourers in the district, and their women serve as midwives.

BAWARIA—There is a story that a party of Rajputs was escorting a Rajput princess from Gujarat to the Zenana of the Emperor of Delhi. The party halted near a big *baori* (step well) on the way. A Rajput girl of this place happened to meet the princess and she reproached her for bringing disgrace on herself by agreeing to enter the harem of the Muslim Emperor. Stung with remorse, the princess committed suicide by drowning herself in the *baori*. Her escorts did not have the courage to go further or to return to their home without her and they started committing depredations in the

vicinity. They were called by the people as Baoriwalas, and in course of time, came to be known as Bawaris. Ibbetson calls them a hunting tribe who take their name from the *Bawar* or noose with which they snare wild animals. They are, however, a vagrant tribe whose proper home appears to be Mewar, Ajmer and Jodhpur.[1] They are divided into three sections, the Bidawati of Bikaner, the Jangali or Kulka Malia and the Kaparia. The Bidawatis have settled in villages while the remaining two sections mostly still wander from place to place. The Bawaris in this district are mostly Bidawatis and are employed in agriculture and other manual labour on development projects like the digging of canals etc.

MAJHABIS—Majhabis denote *Chuhras* (Sweepers) who have become Sikhs. They do not touch night soil, though usually perform all the other offices hereditary to the *Chuhra* caste. They are the followers of Guru Teg Bahadur, whose mutilated body was brought back from Delhi by *Chuhras* who were then and there admitted to the faith, as a reward for their courage and devotion. But, their low origin still clings round their neck as a milling stone as Sikhs of other castes refuse to associate themselves with the Majhabis even in religious ceremonies. They have separate *Gurudwaras* and separate *Granthis* (Sikh priests) and they often marry with the Lal Begi or Hindu *Chuhras*. They are very good soldiers and a number of regiments of the Indian Army are predominantly composed of Majhabis. A few of them are called Rangretas who consider themselves socially superior to the rest. The origin of their superiority seems to be the result of their giving up scavenging for leather work which gave them a lift in the social ladder. Majhabis though Sikhs by religion have their customs similar to those of other Scheduled Castes.

Traditional barriers between the *Savarna* Hindus and the Scheduled Castes are losing their rigidity because of the pressure of economic and social forces aided by liberal legislative measures. The lot of the depressed classes has considerably improved owing to the special consideration shown to them by the various governmental agencies and other social welfare bodies. The process of emancipation of these subdued castes and tribes from their age old bondage has started only recently, it will take some time before they would stand shoulder to shoulder, socially and economically, with the other sections of the society.

1. Ibbetson, Sir Denzil, *Punjab Castes*, Lahore, 1916, pp. 275-276.

SIKH CASTES—Most of the Sikhs in the district have migrated from the adjoining State of the Punjab after the advent of the Gang Canal. Following are the numerically important castes among them :

JAT SIKH—They have migrated from the Malwa (Ludhiana, Firozpur and the former eastern Punjab States) region of Punjab. The main sub-divisions amongst the Jat Sikhs of the district are five: Grewals, Gils, Dhariwals, Sidhus and Dhillon :

(i) GREWALS—They trace their descent to a Rajpat Raja Rikh from the south of the Punjab. The Grewals regard themselves superior to other *Gotras*. Like the Rajputs their women are secluded, and do not work in the field.

(ii) GILS—They claim descent from Surajbansi Rajputs, their ancestor being a king of Gharmela in the south.

(iii) DHARIWALS—Their ancestor was, as usual, a Rajput who migrated from Jaisalmer and settled in the Punjab and became a Jat.

(iv) SIDHUS—They are an exogamous section and avoid father's *Gotra* only, in marriage. They claim descent from a Bhatti Rajput, Jaisal, the founder of Jaisalmer.

(v) DHILLON—The Dhillon Jats claim descent from Raja Karna whose descendent, Thal married a Jat wife. They only avoid the father's *Gotra* in marriage.

ARORA SIKH—Those Aroras who have been converted to Sikh religion from time to time, are called Arora Sikhs. It had been a custom among the Hindu Aroras that if their sons did not survive, they would dedicate one of them to the Guru and make him a Sikh. They are endogamous, but they intermarry with the Hindu Aroras, although the orthodox Sikhs do not approve of such marriages. They have the same subdivisions as are prevalent among the Hindu Aroras and these sub-divisions are exogamous. Arora Sikhs have two broad divisions: *Sehajdhari* and *Keshdhari*. Those who are Sehajdhari do not keep long hair and beard which is the hall mark of other Sikhs. They, however, wear *Kara* and observe all ceremonies and customs of Sikhs. Arora Sikhs are mostly traders.

KAMBOH SIKH—The Kambohs are one of the finest cultivating people that have migrated to Ganganagar and most of them hail from the former Kapurthala State of the Punjab. They claim their descent from Raja Karna and it is said, to indicate their reliability, that during the disturbed times, they used to be employed by the rich bankers for carrying their cash in the disguise of Faqirs. Marriages among the Kambohs are performed in a very simple manner. The caste *Panchayat* has fixed an amount, which is very small, that could be spent on a marriage. Even the bands and *shamianas* are not permitted on such occasions. The main sub-divisions among them are Thind, Joshan, Jammu and Marok.

Muslim Castes

RATHS—The Raths are not found in any other district of Rajasthan except Ganganagar. They are all Muslims but claim descent from Rajputs. In Hissar they are called *Pachhadas* because they are supposed to have come from the west (*Pashchim*) and their facial traits suggest an ethnic connection with the tribes of the western Punjab. The word Rath means cruel or ruthless, testifying the past history of these people as great marauders. But now their chief occupation is rearing of cattle, and some of them possess large number of herds. They leave their villages and migrate to other places when faced with paucity of grass and scarcity of water.

JOHIYAS—They have been called 'Lords of *Jangaldesa*' in the old chronicles[1], and were then known as *Yaudheya* or "War Like" people living by the profession of arms. The old bed of the Ghaggar river below Bhatner is said to be their ancient abode. Their Rajput descent, however, has been disputed in the Gazetteer of the erstwhile Bahawalpur State.[2] Johiyas held their sway over whole of the district before the advent of the Rathors, and at one time they had eleven hundred villages in their canton. Now they are mostly agriculturists.

MISCELLANEOUS GROUPS—Some of the other unimportant social groups are *Kumhars* (potters), *Julahas* (weavers), *Nais* (barbers), *Khatis* (carpenters), *Sakkas* (water carriers), *Jogis* (religious devotees), *Dhobis* (washermen), *Luhars* (blacksmiths), *Mirasis* (Muslim bards), *Telis* (oilmen), *Rangrejs* (dyers), *Kahars* (Hindu Palanquin bearers), *Rebaris* (Hindu camel keepers), *Manihars* (bracelet makers), *Bharbhunjas* (grain raosters) and many others.

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1. Tod, *Annals and Antiquities of Rajasthan*, Vol. I, p. 142.
2. Malik Muhammad Din, *Punjab State Gazetteers*, Vol. XXXVI-A, 1904, Bahawalpur State.

INTER CASTE RELATIONS—As in other parts of the country, the caste is gradually losing its traditional hold due to the spread of education and compulsion of social forces including penal legislation. But in the rural areas, especially the *Barani* portion where points of social contact are few and progress of education tardy, new progressive ideas are trickling slowly and old social barriers and prejudices still persist. In fact, even in the urban areas, marriages outside the social group are contracted very rarely and inter-community marriages are still fewer.

SOCIAL LIFE

Property and Inheritances

JOINT FAMILY SYSTEM—Usually the joint family consists of the parents, sons-married and unmarried, and the unmarried daughters. It continues to be a joint family so long as its members find it possible to live together in harmony, but dissensions take place, especially among the females, and the grown up sons start living apart forsaking the common kitchen and even the common abode though the property is not usually divided during the life time of the father. There are indications that the joint family system is breaking up in the towns especially amongst the educated classes, industrial labourers and artisans; although it still survives in the rural areas amongst the agricultural classes. The popularity of the *Mitakshra* joint family system, in which *Karta*, the head of the family, has unlimited powers and control over the family income and expenditure, is now on the wane. Among factors responsible for its breakdown, mention may be made of severe economic pressure of the day and problems of adjustment between members. Moreover, sons of a family no longer invariably follow the ancestral profession as they did in the past, and exigencies of earning a livelihood may compel them to live away from their family hearth and home. These reasons were too potent to permit the continuance of the inviolability of the joint family system. It had to become lax.

It is not possible to determine the exact situation when a joint family breaks-up. Some families continue as joint for several generations. Others disintegrate as soon as the head of the family dies or even during his life time. Youngmen endowed with modern western education which emphasises individual right as the basis for the development of personality show a scant regard for the traditional values of living jointly under one roof and re anxious to separate themselves during the life time of their father. Although they do not seek the division of ancestral property, yet they keep their personal earnings separate and do not contribute to the

common fund. In case the father is unable to earn, he may live with one of his sons; if, however, the father lives separately, the sons generally contribute towards the maintenance of the parents.

In 1961 Census, twenty per cent households in the district were selected for the study of the size of the family. Households with 2-3 persons have been classified as small, with 4–6 average, those with 7–9 large, and the ones with 10 and above very large. The number of households thus classified was as follows:

Households	Number
Total number of households	37,557
Single member households	2,842
Small households	7,333
Average	15,271
Large	9,129
Very large	2,982

INHERITANCE—Among all communities all sons get equal share in the father's property, both moveable and immoveable after his death. According to custom and even in Hindu law the daughter was debarred from inheriting full interest in the father's property even if she happened to be the only issue of her parents. The parents could bequeath to the daughter any amount from the moveable property, she could not get immoveable as it went to the next male heir in order of propinquity. The Hindu Succession Act, 1956 now places the daughter in the same order of inheritance as the sons, although in practice, the property still generally passes to the male heirs according to custom. Law of primogeniture used to apply among the *Jagirdars* and the eldest son got the lion's share, the others getting only subsistance allowances.

ADOPTION—Adoption is recognised in Hindus, Jains and Muslims. The adopted son enjoys all the rights of a natural son in the adopting father's family and loses all rights in his natural father's house.

MARRIAGE AND MORALS

POLYGAMY—Polygamy was permissible among the Muslims and in the past also among Hindus and Sikhs. According to custom and usage, Rajputs, Aroras, Jats and Sikhs sometimes had more than one wife living

at a time. Even before the Hindu Marriage Act of 1955, due to social awakening and economic pressure, polygamy was fast dying out and generally respectable people hardly, if ever, married a second time during the life time of their first wife. Among the Muslims, however, polygamy as allowed under their personal law, persists. The Hindu Marriage Act, 1955, has abolished polygamy from among Hindus making it an offence. According to this Act, neither party can have a spouse living at the time of marriage under any circumstance with the result that monogamy among Hindus in the district is, now the rule. The same Act also provides 18 as the minimum age for the bride groom and 15 for the bride. The breach of the law in regard to age is punishable as an offence. Even before bigamy had been made an offence, Rajasthan Government employees were debarred from marrying again in the life time of the husband or the wife. Any breach of this rule also renders the government servent liable for disciplinary action and severe punishment. Even social stigma is attached to polygamy. Polyandry is almost non-existent in the district.

MARRIAGE RULES—Hindus and Sikhs are traditionally endogamous in as much as one is expected to marry within one's own caste. They are also exogamous as a Hindu is prohibited from marrying in the circle of those related to him within seven degrees. Civil marriages are contracted under the Special Marriages Act and the Hindu Marriage Act. In this district, however, the provisions of these statutes are very little known and are rarely resorted to. Only ten marriages under the Special Marriage Act and under the Hindu Marriage Act have been registered till 1966 in the district.

The Muslims are debarred from marrying only blood relatives, viz., direct brothers, sisters, uncles and aunts, both maternal and paternal.

It must, however, be mentioned that the circle of intermarriage between castes is now gradually widening as caste is losing its rigidity and education is releasing the individual from the bond of tradition and religious taboo. Inter-caste and inter-religion marriages, though not very frequent, nevertheless point to the tottering social barriers.

MARITAL AGE—Child marriages are no longer common these days in this district and among all the Hindu communities, girls are rarely married before the age of 13 years and boys before 18 years. There is a local proverb about the age of marriage *Tiriya Terah, Purush Atharah* i.e. a girl of 13 and a boy of 18, seems to be the general rule. The fact that

child marriages are on the wane is also confirmed by the Census (1961) figures as stated earlier.

DOWRY SYSTEM—The system of giving dowry at the time of marriage is, as in other parts of Rajasthan, prevalent in all sections of people in this district. But it is more pronounced in urban areas, and especially among Mahajans, than in rural areas. The effect of recent legislation banning it is not yet noticeable. In the case of some economically backward classes and Scheduled Castes like *Malis, Nais* and *Odds*, the bride's father takes money from the bridegroom. They consider the daughter a valuable commodity and custom decrees it. At the time of her marriage money is demanded rather than given.

MARRIAGE CUSTOMS—The marriage season among the Hindus is determined by astrological considerations. As a rule, marriages are avoided during the four months of the rainy season, as it is believed that the gods are asleep in those months which, therefore, are not propitious for the purpose. *Chaitra, Vaishakh, Mangsar* and *Magha* are the favoured months for marriages. Among the Rajputs the festivals of *Janam-Ashtami, Basant Panchami, Radha-Ashtami* and *Akha-Teej* are also deemed propitious for marriages.

The marriage customs among Brahmans, Rajputs and Mahajans are similar everywhere and need not be described here. Among the Jats at the time of *Sagai* or engagement a coconut and a rupee, emblems of fertility and wealth are sent to the house of the bride. There, the *Biradari* (brotherhood) collects and the ceremony is concluded by putting the coconut and the rupee in the lap of the bride. The day for the wedding is then fixed by the bride's parents and the *Barat*, which consists generally of 25 to 30 men, reaches the village in the evening. At the appointed time the bridegroom proceeds to the bride's house in red clothes and with a sword in his hand. The village carpenter affixes a frame of wood called *Toran* over the door and the bridegroom strikes this with his sword and enters the house. The *Toran* is a cross-barred frame resembling a wicket, and the custom is probably a relic of the olden days when the victor had the privilege to carry away the women folk of the vanquished by right of conquest. The main ingredient of the marriage ceremony lies in the young couple going round the sacrificial fire (*pheras*) after the invocation of the gods. The conclusion of the ceremony is followed by a feast to the marriage party which disperses the following day.

Among the Aroras the *Mangani* or the betrothal ceremony is performed in a temple or a *Dharamshala* where the relations of both the parties assemble. The bride's father presents a rupee, a coconut and a turban to the bridegroom's father. Formerly, the ceremony of betrothal used to be performed without any regard to age, and sometimes children yet unborn were betrothed, but this custom is no longer in vogue now. No date is fixed for the marriage at the time of the betrothal, as Brahamans have to be consulted to ascertain the *Sayya* or *Muhurat* (auspicious hour) for the ceremony and then bridegroom's relations, normally his uncle and maternal uncle, visit the house of the bride for the *Kaj-ganetra* ceremony (marriage fixing ceremony). The date for the marriage is fixed in the presence of the *Biradari* (brotherhood) which is done in a temple or *Dharamshala*. Once the date for the marriage is fixed, it can under no circumstances, be revoked. On the appointed date the marriage party starts for the bride's house, and one of the ceremonies performed at the time of the departure of the *Barat* is *Jandi Vadhana* in which the bridegroom cuts a branch from a *Jand* tree by a sword. The marriage party is received by the *Biradari* (brotherhood) on its arrival at bride's place and the ceremony is called *Milni*. Other marriage customs amongst the Aroras are similar to those of the rest of the Hindus.

An essential ceremony in marriage among Aroras as among all the Hindus is known as *Phera*. The bride and bridegroom go round the sacred fire seven times. It is recognised as one of the essential ceremonies under the Hindu Marriage Act. *Gouna* is the second marriage ceremony. Aroras and Khatris call it *Muklava*. After marriage proper, the bride returns to her parents and remains there till this ceremony is held. Among the Aroras it is usually held immediately after the marriage. As the child marriages are no longer performed, the *Gouna* ceremony is not delayed even among other communities also.

SIKH MARRIAGES—Since the Sikhs, generally speaking, are not particular for performing marriages at an auspicious time like Hindus, the wedding day is fixed to suit the convenience of both the parties, preference, however, is given to the birth day anniversary of one of the tenGurus, or a full-moon night or the first day of the month of vikrami era known as *Sankrant*. *Shagun*, which is sent by the bride's party two or three days before the marriage, consists of gifts of money, turmeric, *Kara*, *Kach*, *Kripan* and *Kanga* (these are four of the five prescribed 'Ks' of the community). Other things sent with the *Shagun* are a small booklet containing religious hymns called the *Gutka*, and sweets and fruits. The proper marriage ceremony is known as *Anand Karaj*. A

religious congregation is held in the presence of the holy *Granth*. There is non-stop reading or *Akhand Path* of the *Granth*, generally, started three days in advance at the bride's place. The priest reads aloud four hymns from the Holy Book meant specifically for this occasion, while the groom and the bride go round the *Granth*, four times. After the singing of a few more hymns, appropriate to the occasion, the ceremony comes to an end.

A recent feature of these ceremonies, among all the communities, is the greater display of pomp and show on such occasions than during the former times. Two decades back only the very rich people used to arrange for *Shamianas*, bands, furniture and other decorations, but all such ostentations have become a common feature now, in every marriage. The marriages, therefore, are very expensive these days and thus becoming a veritable burden to the common man.

WIDOW MARRIAGE—Among the Brahmans, Rajputs, Aroras and Mahajans widow marriage is not favoured while among all the other Hindu castes, widow marriage is permissible and is called *Nata* or *Karewa*. A man cannot marry his younger brother's widow but may marry the widow of his elder brother. The younger brother has the first claim on the widow's hand but if he does not marry her, any one in the house may do so. No disability of any kind is attached to the children of *Nata* marriage. Among some castes young widows are married off by their deceased husband's relations who take money from the second husband. No feast to the brotherhood is given in *Nata* and consequently, this type of marriage is much less expensive than the original one. It must, moreover, be noted that a widow cannot contract a valid *Nata* marriage except with a man of her own caste, though she is not forced to marry against her will. In all castes, a widow who has no son retains her deceased husband's property till her death or remarriage.

The marriage of widows is also permissible among the Sikhs. The ceremony is called *Chadar Pana* or *Chuni Dalna*. The widow and the person who accepts her in marriage are presented before the *Biradari* (brotherhood) and the marriage is solemnised. The parents of the widow are present on these *Nata* ceremonies and their consent is also taken on such occasions. Among the Muslims, the Mohammedan law enjoins marriage of widows. A remarried widow, generally, is socially esteemed lower than other women.

DIVORCE—Dissolution of marriage in high castes is usually not done. It is prevalent in lower castes for instance *Odds*, *Majhabis*, *Khatiks*, etc.

Position of women

Educational facilities for girls are bringing about a welcome change in the younger generation but the result will not be visible for some time. At present only a few women belonging to the upper and middle classes are coming up on their own or are economically independent. Among the working classes, women have all along worked alongside their men and in a very real sense enjoy more freedom than their upper class sisters. They are certainly more secure economically; but, they too, occupy a subordinate position in the social scale. However, women in an ordinary home, have to perform various household duties and most of their time is spent in the performance of such functions.

PROSTITUTION – The suppression of Immoral Traffic Act, introduced in 1956, provides for the suppression of brothels and trafficking in women and the Red light area have, since then, disappeared.

Other Rituals and Customs

Different social groups have their own customs and traditions which they celebrate at different stages of the life cycle. Among Hindus child birth comes first in this cycle. No immediate festivities follow it but the birth of a son is a matter of rejoicing. God *Brahma*, the creator among the Hindu Trinity, is worshipped on the sixth day (*Chhati*) when the *Namkaran Sanskar* is also performed among a few castes. The daughter or sister of the house brings jewellery for the new-born son on the occasion of the first Holi festival. *Jharula* ceremony is performed, when the child is a couple of years old. On this occasion, his hair are cut for the first time as an offering to the deity most respected by the caste and a dinner is given to the near relations.

Most of the Hindus cremate their dead. The exceptions are devotees of Ram Deo Ji and Bishnois, who bury them. Among Muslims burial is the rule. Small children, and those died of small pox, leprosy or snake bite are also buried. Sikhs also cremate their dead and at the cremation ground recite appropriate verses from the holy book. Post-cremation rituals of Hindus are similar to those held in other parts of the country. There is a twelve-day mourning period after which *Teharwin* or thirteenth day ceremony is performed. The Aroras hold a ceremony on 9th or 10th day which is called *Dhaka*. Sikhs observe mourning from 8 to 11 days. On the 8th or the 11th day, there is an *Akhand Path* or non-stop recitation of the holy *Granth* for 48 hours, and at the *Bhog* ceremony

of the *Path*, *Dastarbandi* or tying of *Pagri* on the head of the eldest son takes place before the *Biradari* (brotherhood). The *Pagri* is sent by the father-in-law of the eldest son, if married, and by his *Nana* (Maternal grand father), if unmarried. At the time of the first *Barsi* or anniversary *Sadharan* or *Akhand Path* is undertaken. Most of the customs are common among the Hindu and Sikh Aroras because of their long associations, and sometimes inter-marriages among them. There is no feast like *Mosar*[1] among the Sikhs although the *Majhabi* Sikhs do throw such a feast. The *Mosar* ceremony is, however, fast disappearing among all the castes of the district, partly due to a statutory ban on it and partly because of the enlightenment emerging through education and social and economic compulsions.

HOME LIFE

HOUSES AND HOUSEHOLDS – There are 1,54,844 houses in the district, 1,35,691 in rural areas and 19,153 in urban (1961 figures).[2] The number of persons per occupied census house is 6.7 for the district as a whole, 6.5 for the rural population and 7.8 for the urban. The corresponding figures for Rajasthan State are 6.35, 6.31 and 6.57 respectively. The position of occupied residential houses in Ganganagar District and Rajasthan State is given below.[3]

	Ganganagar District	Rajasthan State
Total Population	1,037,423	20,155,602
Total occupied residential houses	154,844	3,172,851
Rural Population	887,471	16,874,124
Occupied rural residential houses	135,691	2,673,676
Inhabited villages	1,538	32,241
Urban Population	1,49,952	32,81,478
Number of occupied urban residential houses	19,153	4,99,175
Towns	10	145

The number of occupied houses for each tahsil is as follows[4] :

1. A feast at the time of the death of some elderly person.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 19.
3. *ibid.*
4. *ibid.*, p. 21.

Name of tahsil	Total	Rural	Urban
Karanpur	14,156	12,827	1,329
Ganganagar	27,092	19,917	7,175
Padampur	12,771	12,218	553
Hanumangarh	34,678	31,050	3,628
Raisinghnagar	13,770	12,327	1,443
Suratgarh	14,026	12,735	1,291
Nohar	17,493	15,578	1,915
Bhadra	13,063	11,647	1,416
Anupgarh	7,795	7,392	403

The number of occupied houses for each town has been given below[1] :

Name of Town	Number of occupied houses
Karanpur	1,329
Ganganagar	7,175
Gajsinghpur	553
Sangaria	1,091
Hanumangarh	2,609
Raisinghnagar	1,443
Suratgarh	1,291
Nohar	1,915
Bhadra	1,416
Anupgarh	403

Houseless and institutional population

Though this population has been included in the household population, separate census figures are also available for these two categories. A number of people remain constantly on the move, leading a nomadic life. Special arrangements were made to enumerate them. Arrangements were also made for the enumeration of people living in

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 21.

such institutions as big hospitals, hostels, welfare homes or charitable institutions. According to 1961 Census, the houseless population in the district was 7,511, of these 7,304 persons (5,105 males and 2,199 females) lived in the rural areas and 207 persons (119 males and 88 females) resided in urban areas. In the same year institutional population in the district was 2,427 (2,158 males, 269 females) out of which 1,949 persons (1,747 males, 202 females), resided in the rural areas, while 478 persons (411 males and 67 females) lived in urban areas.

DWELLINGS—Most of the towns in the district have sprung into existence during the past few decades after the advent of the Gang Canal. These towns are, therefore, well planned and provision for their sanitation has also been made. The town with narrow and tortuous lanes usually found in other parts of the State is unknown in the colony area. The houses are mostly *Pucca* and made of bricks as stone is not available in the district. Cement is extensively used in their construction and they are well ventilated. The traditional dwelling in Ganganagar and other towns of the district consists of a house with a front room called *Baithak* and gallery leading to an open square known as *Angan*. There are generally two or three side rooms, one kitchen, one bath room and one safe room or *Kotha*. The valuables of the family are kept in the *Kotha*. A *Malia* or a *Barasati* in the second storey is indicative of family affluence. Latrines are usually constructed on the roof of the house. The rich usually have double or three storeyed houses which are called *Havelis*. The district, however, does not boast of such palatial buildings as were constructed by *Sahukars* or by the feudal lords during the princely days. The poorer classes in the towns live in *Kachcha* houses which are often dark, dingy, ill ventilated and provided with little modern amenity.

In villages, the houses though small, have open courtyards and the evil effects of bad ventilation are considerably mitigated by the people sleeping in the open, whenever possible. The spread of education and better sense of security have resulted in more windows and doors for better ventilation being now provided and better type of dwellings, airy and commodious, are coming into existence even in rural areas. At some places beautiful villas provided with all the modern amenities have been built by prosperous farmers for their residence. Even in the *Dhannis*, the *Kachcha* houses built of mud are far better than the house of an average villager in other parts of Rajasthan. There are generally no latrines in rural houses and the residents resort to the open spaces for easing themselves. A corner of the courtyard serves as the bathing place, if indeed, there be need for one. Going to the village well, tank, or a nearby canal for bathing, is

popular and common. The houses of all the classes in the villages, are almost of the same type except those of the Scheduled Castes. These houses have large cattle sheds attached to them for reasons of safety, though keeping cattle in the same place with human beings leads to insanitary conditions.

The houses of those belonging to Scheduled Castes are usually small, ill-ventilated and low roofed. They are, generally, situated on the outskirts of the village, and are mostly single apartment thatched huts with mud walls.

FURNITURE AND DECORATION—Except for string cots and *Pidhas* (string armless low chairs) there is hardly any furniture in an average village home. Sometimes, shelves are built into the walls of mud huts for the storage of articles and an alcove is provided for housing the deity. But in the houses of prosperous farmers, chairs and tables make their appearance and for squatting on the ground, sometimes a *Dari* or a mat is spread. The rooms are furnished in the same manner as those of the middle class families in the towns. As meals are taken in the kitchen itself, furniture for dinning is superfluous. The walls are decorated by printed calenders displaying pictures of Gods, national leaders and other murals painted on the wall.

Urban houses belonging to very poor people, have much the same characteristics as rural houses. In the houses of the lower middle class people a few wooden chairs and tables can be found. Upper middle class and upper class people furnish their rooms better and a few paintings or photographs adorn the walls of at least one room, which is used for receiving guests. In a few upper class families, houses are tastefully decorated and furnished in the modern western style with carpets, sofa, sets, dinning, room, table and chairs.

As most villages still have no electricity, people in villages use either kerosene lamps and lanterns or *Diyas* (earthen lamps) which have cotton wicks fed by mustard or sesamum oil. The boon of electric power coming from the Bhakra Project is, however, spreading gradually. In the country side all the important villages have alredy been electrified and most of the houses have private connections. In rural areas gas lamps are often used on special occasions such as marriages etc.

Dress

The dress of the rural people is very simple, and usually consists of three items: a *Tahmet* (lion cloth measuring about two-and-a-half

metres in length and one metre in breadth), a *Kurta* (loose shirt) and a *Safa* (a small piece of cloth which is wrapped around the head so as to provide protection from heat and dust). The Sikhs put on *Pagri* instead of *Safa*. During the winter they will keep a woollen *Kambal* or a blanket to keep themselves warm. In the towns the Marwari tradesmen wear *Dhoti*, *Kurta* and *Pagree* but the use of *Pagree* is not very much in vogue these days. Shopkeepers and non-Marwari tradesmen wear *Kurta* and *Pajamas*. Western style dress is popular among the educated classes and they use bush shirts and trousers. Womenfolk among the Punjabi immigrants wear *Salwar*, *Jampar* and *Dupatta* while others wear *Lahenga*, *Choli* (blouse) and *Chunri*. *Sari* is also becoming popular among the urbanities these days. During winter woollen coats are worn by almost all the classes of people in the towns.

ORNAMENTS—The use of ornaments is more prevalent among Marwaris, Jats and Scheduled Castes than among the Sikh and Punjabi settlers of the canal colony. The ornaments usually worn are : *Bore*, *Tikka* and *Choti-Phool* on the head; *Kantas*, *Jhumars*, *Balis* and earings in the ears; *Nath* and *Koka* in the nose. The neck ornaments are the *Hansli*, *Mala*, *Kanthi*, *Dora* and necklace (usually of gold *Mohars*). Sometimes more than one of these ornaments are worn. The hands are adorned by *Chura*, *Kari*, *Gajra*, *Punchi*, *Gokhru*, *Panjangla*, *Bajuband*, while fingers by *Angoothi* (ring). Round the waist is worn a chain called *Kandora* and on the ankles and feet *Sati*, *Langar*, *Kara* and *Angootha*. A detailed description of each would be unnecessary because most of these are the same as generally worn in other parts of the State.

Most ornaments are made of silver, though gold is used by the rich. During princely times gold could not be worn on the feet except by those to whom the prince had granted this honour. Though this disability no longer persists, people do not generally wear such ornaments.

Males do not use ornaments save a string necklace to which amulets are tied, and *Angoothis* or rings. Sikhs wear gold *Kanthas* (necklace) at the time of their marriages, while some of them wear gold *Karas* round the wrist.

A large number of people in the rural areas carry arms with them. To have a gun licence is considered to be a sign of prosperity and a mark of social status among the peasantry. Sikhs keep *Kripan* or a sword as provided in their religion.

FOOD—Sikhs, Aroras, Rajputs, Muslims etc; are non-vegetarians. Beef however, is tabooed among the Hindus and Sikhs, as elsewhere in India. Even the Muslims avoid it in regard for the religious sentiment of the Hindus. Brahmans, Mahajans, Jains, Bishnois and Jats are, generally vegetarians. People of the other lower castes are non-vegetarians.

The staple food of the people in this district is wheat. Other food grains such as *Bajra*, gram, barley, maize and rice are also consumed. Wheat is, generally, used in the canal colony area while the residents of the *Barani* areas live on *Bajra*, *Moth*, barley and gram and use wheat and rice only on special occasions. The poorer sections usually take food with raw onions, *Kadhi*, *Chhachh* or *Chatni* of red chillies. *Rabree* a mixture of *Chhachh* and *Bajra* or maize, is very commonly taken in the *Barani* areas by all classes. Pulses eaten are *Moong*, *Urad*, gram, and *Moth* Vegetables commonly consumed are potatoes, cabbage, *Mooli*, *Gawar-ki-phali*, *Louki*, *Kakri*, *Kachar Tinda*, *Sangri* and *Khumbe*. The district is famous for its cytrus fruits, which are taken by all classes while other fruits are consumed only by the well-to-do people. Milk products mostly consumed are *Chhachh*, *Dahi-ki-Lassi* and butter etc. Condiments used in this district are the same as are used in other parts of India. A few years back the use of milk and *ghee* was very common among the people, especially, in the rural areas, but tea has now taken the place of milk and vegetable oil that of *Ghee*. This is, probably, due to the fact, that lesser number of people keep cows and buffaloes. Sugar is mostly used in the urban areas, peasants prefer *Gur* or home made brown sugar, (jaggery) as sugar-cane is produced in a large quantity in the Canal Colony.

FOOD ON SPECIAL OCCASIONS—On marriages, festivals, births etc. people take special food which consists of *Halwa*, *Khir*, rice *Phirni* (this preparation has come from Punjab), *Churma*, *Moong-ki-dal-ka-halwa* and other sweets. *Kheechri* is a speciality of Akha Teej. *Kheer* is usually prepared on *Shradhas* and *Mitha Bhat* or sweet rice on Diwali. On Shitla Ashtami day, *Pua*, *Papadi*, *Puri*, *Bhujia* and *Mithi Roti* are prepared a day before they are eaten as they have to be taken cold. Mohammedans eat *Savain* and *Zarda Pullao* on Id-ul-fitar and various kinds of meat preparations on Id-ul-zuha. Sikhs are also very fond of non-vegetarian dishes and meat is served even in their marriage feasts.

HOURS OF MEALS—The people in the towns take morning tea with a light breakfast which is followed by two principal meals, one in the

morning at about 11 A. M. and the other between 7 to 9 P. M. Jains invariably take their evening meal before sunset. In rural areas people take three meals a day. The farmers and those who help them at the farm have their first meal in the morning before going out to the fields for work. This meal which is called *Siravan* (breakfast) consists of curd and *Roti* or *Roti* and tea and is taken at about 6·30 A. M. during summer and at about 7·30 A. M. in winter. The second meal known as *Dopahre* is taken at about mid-day and consists of *Roti* made of wheat or *Bajra*, some dry vegetables or *Dal* and *Chhachh*. Evening meal is taken at about 7 P. M. which consists of *Roti*, raw onions, *Chatni* of chillies and some vegetables. Evening meal sometimes consists of *Khichari* or *Dalia* alongwith milk.

Food etiquette

Shoes are usually not worn at meal times. Food is kept at a slightly higher level than the seat of the person taking it. People generally sit on *Peedha* and keep *Thali* (metal plate) and *Katoris* (metal cups) on a *Tipai*. The *Chowka* is almost unknown in this district except among the high class Brahmans, Vaishyas and Jains who live in the towns. The common people do not observe any restrictions regarding *Chowka* except with certain Scheduled Castes. The rural people take their meals in the kitchen, or on a cot or *Patta*, or anywhere they are served with. In some orthodox Hindu families people put a little *Ghee* and small pieces of all preparations in the fire before the first serving of meal as a symbolic offering, while some others keep it apart on their *Tipai*. In one way or the other, food is offered to God before it is eaten. Sweets are, generally, served first and if served together, people begin with sweets. But in some westernised families sweet dish is served as the last course. Marwaris take *Papad* or wafer invariably at the end of the meals and when it is served it is considered as the last item of the menu. Among the Punjabis *Papad* is served, if served at all, together with the meals. The women generally eat after the men have finished but in a few and more advanced families, the husband and wife dine together. In the towns and among the rich farmers western influence, on the type of food and the manner of taking it, is comparatively more pronounced than in the other parts of Rajasthan. Tables and chairs are quite common and so is the crockery particulary for serving the tea. Educated people do not mind taking food with their shoes on.

Smoking and drinking

Except the Sikhs, most of the people smoke tobacco in one form or the other. *Chilam*, *Huqua* (hubble bubble) or *Bidis* are used in the rural

areas. In towns cigarettes are preferred. The use of alcohol and other intoxicants is prevalent in the district to a large extent. Liquor is consumed in large quantities by Scheduled Castes on marriages and other festivals like Holi etc. In the rural areas, a great number of people especially the Sikhs and the Rajputs are addicted to opium.

In the urban areas, betel leaves (*Pan*) are chewed, both as a matter of habit and a delectable pastime. Some habitual *Pan* eaters put tobacco in it, in order to get a little kick out of it. In the rural areas *Pan* is not very popular.

AMUSEMENTS AND GAMES—The principal games played in the urban areas of Ganganagar district are football, volleyball, hockey, tennis and cricket. Besides, gymnastic exercises and athletics are also a regular feature of sports life of Ganganagar. The popular indoor games are table tennis, *Chauper*, playing cards, chess and carrom. The main games and sports played in the rural areas are *Kabaddi*, *Mardari*, *Ankhmichoni*, *Khoh*, *Kushti* (wresting), while indoor games are *Chaupar*, cards, *Charbhar* etc. The educational institutions provide facilities for a large number of such games and sports and thus make them popular among the masses. In remote areas where such facilities are not adequately available, the games are simple and often consist of a local adaptation of those played in towns. Gambling is not popular in the district, except on Diwali, when a large number of people indulge in it.

In most towns and headquarters of the Panchayat Samitis, there are small libraries (other than those of the educational institutions) and reading rooms where a few magazines are subscribed.[1] Public parks have been laid out by the municipalities in almost all the towns where people may spend their leisure. As the district is studded with irrigation canals, picnic parties are organised by the people during the rainy season at these canals providing them with an opportunity for swimming.

There are fourteen cinema houses in the district, with a total seating capacity of 8,464 persons.[2] Teams of the publicity departments of Government of India and the Government of Rajasthan visit rural areas periodically and exhibit educative shorts and feature films to the village audience. The Panchayat Samitis also exhibit news and feature reels in their respective areas.

1. Details about libraries etc. will be found in the chapter "Education and Culture".
2. *Statistical Abstract, Rajasthan*, 1967.

Radios are owned by many people, though community listening sets have also been installed by local bodies. In rural areas a number of community sets are maintained by the Panchayats. These sets are turned on at fixed times for news bulletins and other programmes broadcast by the All India Radio.

Other sources of entertainment are dancing and musical parties, card games and chess, etc. There is a particular caste Dholi, among the Hindus and Mirasis among the Muslims, whose profession is to provide indigenous music fun and frolic on marriage occasions. Folk songs are sung with gusto in the villages while *Bhajan* parties are organised on sacred days and *Kirtans* (devotional music) are recited in temples. Touring dramatic parties perform on the improvised stage *Ram Lila* and *Raslila*. Old people who cannot participate in any active form of recreation, pass their time by telling tales to the youngsters from mythology or India's glorious past.

In Ganganagar town there are several institutions devoted to dance and dramatics. The Rashtriya Kala Mandir imparts training in classical music and Ganganagar Mahavir Dal entertains thousands of people by staging Ram Lila and other religious dramas every year on Dussera festival.

Folk Dances

The basic cultural theme in the folk dances of the district is, generally, the farmer's life, the changing seasons, the sowing and harvesting of crops, alongwith the march of local and regional history. Thus, these folk dances ably depict the joys and woes of the farmer. The popular dances of this area are *Dandia-Ras-Nritya*, *Ghumer*, *Bhangra* and *Gidda*.

DANDIA-RAS-NRITYA—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 hanging the drum round his neck. He gives the rhythm of the dance and leads. The dance begins with slow shuffling steps, but as the drum is beaten faster the steps too grow swifter. The dance goes on round and round, arms waving, feet moving in step. In between the dance there is the exclamation of *Ho*, *Ho* to heighten the emotional tempo. This dance expresses the feeling of joy and satisfaction at the conclusion of one season, of the successful life of toil by the sons of the soil and is specially performed on the eve of Holi festival when the spring sets in and t fields glisten with ripening corn.

GHUMER—*Ghumer* is a dance performed by women in their colourful skirts moving in circles and clapping with small sticks or wooden swords on the days of *Navaratra* and the *Gangaur*. Its display is extemely attractive and full of rhythm and charm.

BHANGRA—The vigorous *Bhangra* of the Punjabi immigrants symbolises a farmer's joy at harvest time. Though traditionally danced on the occsasion of *Baisakhi*, it is performed every time there is an occasion for the expression of merryment and joy. A drummer standing in the middle of the party starts the song by beating the drum with a stick and the dancers move around in step singing and occasionally yelling *Balleh, Balleh*. At first their movement is slow, conforming only to light stepping, but gradually it quickens and the whole body moves raising the tempo of the dance to vigorous body movements. They go round and round in a circle bending forward, straightening, moving towards the right and to the left, hopping on one leg and raising their hands above their head, waving them there. Very often the dancers carry long and heavy sticks with metal hoops and while dancing they raise them high and bring them down upon the ground, all together in unison. One of the dancers comes forward from the ring and with the right palm of the hand cupped and placed at the back of the right ear and the left hand raised up or forward, sings a couplet of a love song at the pitch of his voice. A few words at the end of the couplet are repeated by the rest of the dancers, and then all of them begin to dance with the accompaniment of the drum, with verve and vigour[1].

The dress of the dancers is very colourful. They put on a *Tahmet* or a piece of a coloured or check cloth, flowing *Kurtas* (loose Indian shirts), and *Patkas* (coloured turbans). Over the *Kurtas* they put on a green, red or blue vest with *Jari* stars embedded on it.

GIDDHA—The vital *Giddha* dance is performed by rural womenfolk of the Punjabi immigrants. It is a dance of merriment and joy. The

1. A few of the couplets sung on this occasion are given below :

मेरी रुस गई झाँझरा वाली,

मेरे भाने रब रुसिया ।

My beloved, who wears tinkling anklets, is angry with me, and it seems that God has forsaken me.

जट शाहाँ नूँ खँगूरे मारे,

कनकां निसिरियां ।

The wheat crop is ready and the peasant, while, passing by the shop of the village money-lender coughs challengingly.

dancers clap and also strike on the palms of the dancers opposite to one another. They start slowly but as the dance progresses the beat of the drum becomes faster as also the step of the dancer[1].

The dancers put on *Lahangas* or loose coloured skirts, coloured *Kurtas* for ladies and *Dupattas* or veils.

PROFESSIONAL DANCERS—Some of the wandering tribes exhibit dances as well as rope and other acrobatics. Such tribes are the Kalbelias (snake-charmers), Nats, Banjaras and others. The snake-charmers sing and dance with the accompaniment of the flute, which is called *Pungi* and is made of dried gourd[2].

Folk Drama

Indian drama owes its origin to the *Kathputli* (puppet) dance. This is certainly one of the oldest forms of folk entertainment in India and was very popular both with the masses and the ruling classes. The charm of puppet dance lies in the skill with which fingers can be manipulated to control various movements of the wooden dolls or of dolls made of cotton pads with strings held by the performer. He places two cots in a vertical position and ties a curtain horizontally. Behind this curtain another plain curtain is hung up as the back curtain which hides the *Kathaputliwala* with his hands on the control board of threads guiding

1. A couplet criticising such persons who prohibit Gidha dance, is usually sung on this occasion :

मर जान सिंह साहबिये,

जिना गिद्धे पिडा चु बंद कीते ।

May the Singh Sabhawalas die, because they have stopped in the villages the performance of Gidha dancing.

2. The following are some of the charming tunes played by the Kalbelias :

पड़ोसन बड़ी चकोर ले गई इढुंणी

"The neighbour is very clever. She has made good with my *indhoni* (a thick ring made of cotton, silk or moonj strings and placed on head by women to facilitate carrying of pots of water or other loads)".

सागर पानिडा नहीं जाऊ निजर लग जाय मोय ।

"I will not get to the tank to fetch water, lest I may be caught by an evil eye"

Their "Shankaria" dance performed by gaily dressed men and women is very pleasing.

Following tune is played along with this dance :

अरे शंकरिया रे धमक मत चाल,

मालवा दूरो रे, भाइले मालवा दूरें ।

"O Shankaria do not walk with a thumping gait (of dance) Malwa is far off my friend, very far off.

the movement of the puppets. His wife sings and plays on the small drum (*Dholak*). The stories of brave deeds of Amar Singh Rathore and other chieftains are usually depicted by dance-drama of the puppets.

Folk Songs

Among the Hindus every important event in life is accompanied by some sort of singing. From the time of pregnancy till after death types of songs are laid down for every ceremony. There are songs for festivals, songs hailing the change in seasons, songs sung at work and during the leisure, and of course, songs sung at birth, marriage and death.

Among the Punjabi immigrants the legends and *waars* (long ballads) commemorate renowned warriors and local heroes such as the '*Chandi-diwaar*' (balled of the sword) of Guru Govind Singh, and among others the ballad of Gugga Chouhan (11th century A. D.). There are some romantic songs too, which these immigrants have brought from their homeland. From Jhang, in West Punjab, has come the timeless love story of Heer and Ranjha which has been immortalised by Waris Shah in his great poem. Like all the great love stories of folk love, it describes how two lovers preferred death to separation. The folk songs sometimes provide a vibrant commentary on the social scene. Thus the appearance of face powder has been depicted in the following words: "*Kalean nu khabar karo gora rang dabiyan vich aaya*" (go and tell the dark people that the white complexion can now be had in boxes).

Forms of Greetings

When two persons meet they fold hands to each other and utter *Jai-Ram-Ji-Ki*, *Jai-Hind*, etc.

The Brahmans are greeted respectfully with such words as Maharaj *Dhok*, who respond by blessing in some such words as *Khush Raho*, *Chiranjivi*, etc. Jains greet each other with the words *Jai Jinendra*, Rajputs and Charans with *Jai Mataji*, Jats, Aroras and other Hindus with *Ram Ram*. *Jai Ram Deoji* is used by Scheduled Castes. Educated people mostly say *Namaskar* and *Namaste*. Sikhs greet each other by saying *Sat Sri Akal* or *Wahe Guruji da Khalsa*, *Wahe Guruji di Fateh*. Muslims greet by saying *Sallam Alekam* and the greeting is responded in reverse order. Sometimes they also say *Adabarz*. The national mode of greeting introduced recently is *Jai Hind*. Besides, people belonging to particular religious sects may use their own forms of salutation. Handshake is fairly popular among the educated and is percolating among others also.

Names of Towns and Villages

Most of the towns in the district have come into existence after the advent of the Gang Canal during the regime of Maharaja Ganga Singh. They have been named after some important Maharajas of the ruling dynasty of the erstwhile State of Bikaner e. g. Karanpur, Raisinghnagar and Ganganagar. The names of the villages in the Canal Colony are mostly in Roman alphabets e. g. 9. B. B., I. G. B., 19 F, 16 Z etc. While in the *Barani* areas villages have names ending in *garh* or *sar*, for example, Sardargarh and Rawatsar, denoting either a fort or a tank. Sometimes the name of the prominent community is also added to the name of the village such as Lalgarh Jatan.

DAILY LIFE

This district being primarily agricultural, the daily life of the majority of the people is regulated by requirements of field operations. They get up early in order to feed the cattle and to milk the cows and buffalloes, while women prepare morning meal. The menfolk leave for the fields and the women engage themselves in household work like sweeping the floor, fetching water and cooking the mid-day meal which they carry to fields where all, men and women, work together, till sunset. The women return home earlier to prepare the evening meals. Men follow with their cattle which have to be fed and milked in the evening. The men have to go to the fields in the night again for watching and watering. As water is a very precious commodity for the farmer, he has to keep an all night vigil to prevent its waste and misappropriation, if his turn to take water falls during the night. On a cold winter night one can see the sturdy farmer of this district, a picture of stoical endurance, watering his field.

The duration of working day of the urban people extends to eight or nine hours. The tradesmen usually begin their day by a visit to the temple for *Darshans* (paying homage to the Deity) and after breakfast they go to their shops. These people pay sometimes a second visit to the temple on their way back home. Lunch is taken between 10 and 11 A.M. There is a siesta in summer. Dinner is taken between seven and nine P.M. again depending upon weather and personal habits. Artisan classes have their daily routine similar to that of the tradesmen, while their life, of course, is harder than that of the latter. Employed artisans have their fixed working hours, usually from 8 to 12 A. M., and 1 to 5 P. M. during winter, while after-noon session during summer lasts from 2 to 6 p.m. thus providing a longer lunch break. The working hours of other employees,

whether in government service or in private employment, are fixed by the employer and they have to be strictly followed.

Women have to perform all the domestic duties in an ordinary home, consisting of preparing meals, tidying the house, scrubbing the utensils, washing clothes etc. If the house has no water connection, they may have to fetch water from the public hydrant or whatever source may be available. In the spare time, if any, they would do knitting and stitching etc. Educated women are sometimes employed but generally in the educational institutions and thus help their husbands in making the two ends meet.

FESTIVALS—On every festival people are in a festive mood. They cleanse their houses especially on Holi and Dewali, wear the best dresses they possess, and cook customary special dishes according to the means of the household. The principal Hindu festivals are the same as everywhere else in the State e.g. *Sheetla Ashtami*, *Navaratra*, *Ramnavmi*, and *Gangour* in *Chaitra* (March-April), *Akshaya Tritya* in *Baisakh* (April-May), *Raksha Bandhan* and *Teej* in *Shrawan* and *Bhadon* (July-August), *Janma-Asthami* in *Bhadrapad* (August/September), *Navaratra* and *Dashera* in *Ashwin* (September-October), Diwali in *Kartik* (February-March), Holi in *Phalgun* (March). Of other important festivals of Hindus are *Makar Sankranti* (January), *Basant Panchami* (January-February) and *Ganesh Chaturthi* (Bhadon, August-September). The birthdays of all the ten Gurus are celebrated by the Sikhs; but the birth days of first Guru Nanak and the tenth Guru Govind Singh are celebrated on a larger scale. Mohammaden festivals are *Bara Wafat*, *Shabarat*, *Ramzan*, *Muharram*, *Idul Fitar* and *Idul-Zuha*. Jain festivals are *Mahavir Jayanti* in *Chaitra* (March-April) and *Pajusan* on *Samvat Sari*. The principal Christian festivals are Christmas and the New Year's Day. Among the immigrants from Punjab and West Pakistan, Lohri, a Punjabi festival, is celebrated with great enthusiasm on the Makar Sankranti day and in the towns others also join the festivity. It marks the culmination of winter. From this day the freezing cold is believed to be on the wane. Children go from door to door and collect funds for community bonfires which are lit in the evening. People, who gather round the bonfires, throw sweets, crisp rice and popcorn into the flames, sing popular folk songs and exchange greetings.

FAIRS—The most important fairs of the district are Gogameri fair, Budha Johar fair and Gangaur fair.

GOGAMERI FAIR—At Gogameri, a fair is held in the month of *Bhadon* (August and September) at the temple of Gogaji wherein a

snake carved on stone, is worshipped by a large number of people. Goga was a Chouhan Rajput, who is said to have held sway over an extensive territory from Hansi to the Sutlej in the 11th Century. Col. Tod. refers in his annals to Gogaji in the following words: "Guga Chauhan was the son of Vacha Raja, a name of some celebrity. He held the whole of *Jangaldes*, or the forest lands from the Sutlej to Harana; his capital, called Mahara, or, as pronounced, *Guga-ka-Mahra*, was on the Sutlej. In defending this he fell, with forty-five sons and sixty nephews; and as it occurred on Sunday (*Rabiwar*), the ninth (*naumi*) of the month, that day is held sacred to the manes of Guga by the 'thirty-six classes' throughout Rajputana, but especially in the desert, a portion of which is yet called Guga deo ka thal Even his steed, Javadia, has been immortalised and has become a favourite name for a war-horse throughout Rajputana, whose mighty men swear 'by the *sakha* of Guga', for maintaining the Rajput fame when Mahmud crossed the Sutlej[1]". Every year thousands of people visit his shrine. A cattle fair is also held on this occasion and a large number of cattle exchange hands at this place. It is the general belief that a visit to Gogameri renders one immune from snake bite. About a mile away from Gogameri is a place known as Gorkh Tila which is said to be the former residence of the famous Guru Gorakh Nath.

GANGAUR FAIR—It is held every year at Ganganagar and Hanumangarh in the month of *Chaitra* (March-April). Gangaur symbolises the cultural, social and religious heritage of Rajasthan. It signifies the great faith and reverence of the womenfolk in *Gauri*, their deity. Married women and maidens celebrate the festival, the former offer worship for the welfare, health and long life of their husbands and the latter for being blessed with good natured husbands of their choice. The festival commences on the first day of *Chaitra*, and continues upto the fourth day of the first half of the month. The climax is reached during the last three days. The images of *Gauri* and *Isar* (husband of *Gauri*) are dressed in new garments and carried in procession on the heads of married women to some garden or well during these days. On the first and second day the face of the image of *Gauri* is kept looking back ward. On the third and the final day she faces in the same direction as *Isar*. All the images of *Isar* and *Gauri* made of clay are consigned to waters in some tank or well on the last day.

BUDHA JOHAR FAIR—There is a famous *Gurudwara* at Budha

1. Tod, *Annals and Antiquities of Rajasthan*, vol III. pp. 1452-53

Johar (a village near Raisinghnagar). A fair is held on every *Amavasya* at the Gurudwara but the main fair falls on *Bhadon-ki-Amavasya* (August) in each year. The story goes that during the first half of the 18th century the Muslim rulers were terrorising the Sikhs in the Punjab. Some of the Sikhs, therefore, took shelter in the erstwhile Bikaner State and settled near Budha Johar as water was available at that place. The name of the Jathedar (commander of the group) of these Sikhs was Budha Singh, hence the tank or Johar was named after him. When Massa Ranghar, a Muslim adventurer of Punjab, had occupied the Sikh Gurudwara of Amritsar, the Sikh community was greatly agitated, as wine was drunk and prostitutes danced within the premises of the holy shrine. One Mahtab Singh, who belonged to the group of immigrants that had settled at Budha Johar, left for Punjab alongwith his party in order to kill Massa Ranghar and to remove this stigma on the Sikh religion. On reaching Amritsar, they requested the Muslim guards of the Gurudwara to permit them to meet Massa Ranghar as they were to make a present of gold *Mohurs* to him. Thus, Mahtab Singh and party secured an interview with Massa Ranghar and when the latter was looking into the presents brought by them, they killed him and returned to Budha Johar with his head. They reached Budha Johar on *Bhadon-ki-Amavasya* and it is to celebrate their triumphant return from Amritsar that an annual fair is being held since then.

The names of other important local fairs are Ramdevji fair (Rawatsar), Ramdevji fair (Suratgarh), Hanumanji fair (Suratgarh), Mataji fair (Pallu), Dada Pemaji fair (Vijay Nagar), Ramdevji fair (Fojjuwala), Birbal Singh Shaheed fair (Raisinghnagar), Cattle fair (Padampur), Cattle fair (Karanpur), Bhadra Kaliji fair (Hanumangarh), Cattle fair (Sadulshahr), Cattle fair (Sangaria), Vijaya Dashmi fair (Ganganagar), and Cattle fair (Bhadra).

BELIEFS—The Hindus of the district like their co-religionists in other parts of the country believe in astrology and palmistry. An astrologer is consulted to prescribe the auspicous date and time for all their ceremonies. Some people believe in the effect of evil eye and in the hope of warding it off put black dots on the forehead and cheeks of children and black marks on good cattle. A black earthen pot is, usually, hung on the newly constructed buildings for making it immune from the effect of an evil eye. If a man is bitten by a snake the services of an expert charmar are requisitioned by some people who, it is believed, would call the spirit of the snake in the body of the person bitten. A hiccup is said to convey a fond rememberance somewhere.

The cow is revered by the Hindus. Cowdung is utilised in plastering the floor and kutcha walls and generally as a purifying agent and also as medicine for removing fever, cough and cold and in *Havans* and *Katha* etc. *Tulsi* and *Pipal* trees are worshipped by many. *Ekadashi*, *Purnima*, *Amavasya* days are fast days for the more religious among the Hindus. Fasting on certain days of the week is believed to bring about the desired result. Some other popular beliefs are :

DREAMS—The sight of a white cow, silver, lotus, Brahman, *Ghee*, curd and honey in the dreams is regarded as auspicious. Falling of stars, tongue or teeth, smearing of oil, cow dung and dirty water are symptoms believed to bring calamity to the dreamer. If the dreamer sees himself riding a deer he will have to undertake a long journey, and riding a camel, he will be attacked by some disease. If he rides an elephant, he will gain prosperity and if a boar, his end is near.

OMENS—If a cat crosses the way or some one sneezes at the outset, it means that the venture will result in disappointment. If while going out of the house, one meets a woman carrying water, it is a good omen. The quivering of the left side of the body of a lady and the right side of man, are considered auspicious. The reverse indications forebode calamity.

GOOD AND EVIL SPIRITS—The conservative sections among the Hindus in the district believe in the existence and in the activities of the spirits. It is believed that after death, the soul of the deceased does not leave his house and haunts it for 12 days. By performing *Pind-Dan* it acquires a new body and goes to *Yam Lok* where his record of sins and pious actions is referred to. The persons possessing pure soul untainted by bad action get *Mukti* or *Moksh* and do not take rebirth, while others have to pass through the grind mills of births and deaths again and again.

There are many ways to get rid of the *Pret Yoni* (the life of an evil spirit) e.g., *Shradha* at Gaya, pilgrimage to the holy places, the recitation of the holy books like *Bhagwad Geeta, Ramayan, Mahabharat* etc.

YANTRAS—The belief in the efficacy of *Yantras* or amulets called *Taveej*, in removing the effects of evil spirits and curing certain diseases, is common among conservative sections of society.

MANTRAS—Some people have also faith in the efficacy of recitation of *Mantras* to gain desired objects or to harm others. These *Mantras* are believed to cure diseases, to remove the evil effects of ghosts and spirits, to cure snakebite and even to inflict death. Recitation of certain *Mantras* is believed to enable people to gain the desired object.

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TANTRAS—Certain *Sadhus* and *Faqirs* called *Tantrikas*, are said to possess magical powers to remove fevers, evil effects of ghosts, or of evil eye. There is a practice called *Totka* prevalent among the illiterate, according to which certain articles like chillies, etc. are waved round the head of the patient and placed at cross roads. Any body who happens to touch those articles is believed to catch the disease and the original patient is cured. The *Hat Yogis*, *Oghad Panthis*, and *Jogis* are all *Tantrikas* who claim to influence the people by the application of their *Tantric* powers.

MUHURAT AND DISHASHUL—Before proceeding on a journey, conservative Hindus of the district, take note of the days and directions of the journey. According to their belief journey should not be undertaken on certain days. In cases of emergency they take advantage of a procedure called *Prasthana* to avoid the evil effects. They tie a few grains of rice, a coconut and a silver coin in a white piece of cloth and put it at some holy place like a temple or even a neighbour's house, a day or two before the scheduled time for undertaking the journey. When they proceed on their journey they take the *Prasthana* with them.

One remarkable phenomenon to be noted in the district is that the people in the towns are more superstitious than in the rural areas. Hindu tradesmen and shopkeepers, especially Marwaris in the towns, put more faith in these whimsical beliefs and their women most loyally follow them, while the people in the rural areas, because of the liberalising influence of the Punjabi and Sikh settlers, are less conservative in this respect. Sikh religion does not countenance such beliefs and the Sikh agriculturists, generally, care little for good or bad omens, *Mantras* or *Tantras* etc. This has influenced other communities in denying the force and truth of these superstitions. With the spread of education in recent times people everywhere in the district, are developing a rational approach towards such beliefs and gradually getting out of the clutches of these age old superstitions.

SOCIAL CHANGE—The present generation in the district is passing through a period of transition as is the case with the people everywhere in the country. The political, social and economic forces that have been set into motion by the independence of the nation, have shaken the old order at its roots. A silent revolution is taking place in the whole of the country and the district is under its sway. The life of the common man is entirely different from what it used to be two decades ago. People are gradually becoming conscious of the rights bestowed by the Constitution. The abolition of *Jagirdari* and untouchability has

broken the old social stratification and everybody has been provided with equality of opportunity and equality of status. Rapid industrialisation and the new irrigation projects have revolutionised the economic life of the district. The pace of economic progress has been rapid in this district because of the availability of irrigation and power facilities from the Bhakhra project. Better houses are coming up both in towns and villages. Food and wearing apparel are undergoing change too. In the social sphere caste barriers are cracking up and even inter-caste marriages are taking place. *Purdah* has almost disappeared from the towns and even in the rural areas it is not being as strictly observed, as it used to be. The status of the women has greatly improved and they have been provided equal rights in matters of inheritance and adoption. The impact of these changes, has been quite significant on every aspect of the li fe ofthe people, whose ways of living and cherished beliefs are undergoing a steady transformation.

APPENDIX I

Rural population figures of Ganganagar district by age-groups Census 1961

Age-Groups	Rural Population		
	Persons	Males	Females
All ages	887,471	479,181	408,290
0–4	157,366	80,176	77,190
5–9	140,672	74,377	66,295
10–14	105,709	56,650	49,059
15–19	68,782	38,156	30,626
20–24	78,217	40,379	37,838
25–29	76,498	41,563	34,935
30–34	58,262	32,222	26,040
35–44	81,322	45,002	36,320
45–59	75,606	44,331	31,275
60+	43,786	25,696	18,090
Age not stated	1,251	629	622

Source : *Census of India, 1961, Vol XIV, Rajasthan, Part II-C (i), Social and Cultural Tables* p. 124.

APPENDIX II

Urban population figures of Ganganagar district by age-groups Census 1961

Age-Group	Urban Population		
	Persons	Males	Females
All ages	149,952	84,050	65,902
0–4	25,338	12,902	12,436
5–9	22,004	11,778	10,226
10–14	16,998	9,287	7,711
15–19	13,492	7,941	5,551
20–24	15,622	8,736	6,886
25–29	13,989	8,317	5,672
30–34	10,640	6,451	4,189
35–44	14,259	8,368	5,891
45–59	11,720	7,044	4,676
60+	5,742	3,167	2,575
Age not stated	148	59	89

Source : *Census of India, 1961, Vol. XIV, Rajasthan, Part II-C (i), Social and Cultural Tables*, p. 96.

APPENDIX III

Population by single year age returns, 1961–Ganganagar district

Single year age return	Total		Single year age return	Total	
	Males	Females		Males	Females
1	2	3	1	2	3
All ages	563,231	474,192	32.	6,430	4,114
0	20,083	20,040	33.	2,355	1,333
1.	15,765	15,215	34.	2,340	1,597
2.	19,444	18,239	35.	18,376	15,117
3.	19,654	19,068	36.	2,627	1,678
4.	18,132	17,064	37.	1,527	748
5.	20,916	18,520	38.	2,564	2,248
6.	19,250	17,218	39.	1,462	979
7.	15,486	14,332	40.	20,613	17,965
8.	18,045	15,865	41.	855	458
9.	12,458	10,586	42.	2,929	1,602
10.	19,084	16,211	43.	1,093	600
11.	9,711	8,844	44.	1,324	816
12.	15,231	12,640	45.	14,161	10,923
13.	11,110	9,927	46.	1,367	760
14.	10,801	9,148	47.	1,142	537
15.	13,447	9,778	48.	1,990	1,477
16.	9,787	8,151	49.	1,020	625
17.	5,988	4,710	50.	18,460	13,557
18.	12,033	10,012	51.	715	302
19.	4,842	3,526	52.	1,792	754
20.	16,530	18,566	53.	649	262
21.	6,987	4,743	54.	774	410
22.	12,357	10,728	55.	6,738	4,852
23.	6,596	5,160	56.	725	402
24.	6,645	5,527	57.	499	231
25.	24,547	22,467	58.	753	522
26.	8,035	5,373	59.	590	337
27.	6,114	3,805	60.	11,861	9,059
28.	8,430	7,201	61.	427	185
29.	2,754	1,761	62.	793	335
30.	25,883	22,366	63.	278	145
31.	1,665	819	64.	433	291

1	2	3	1	2	3
65.	3,479	2,430	85.	297	230
66.	417	143	86.	23	14
67.	282	104	87.	24	7
68.	402	196	88.	26	8
69.	325	163	89.	12	34
70.	5,020	3,831	90.	339	293
71.	144	63	91.	6	5
72.	304	126	92.	7	8
73.	123	31	93.	5	4
74.	133	53	94.	6	8
75.	1,131	841	95.	53	28
76.	100	58	96.	18	8
77.	69	15	97.	6	5
78.	204	70	98.	4	10
79.	90	70	99.	9	10
80.	1,716	1,572	100.	67	86
81.	55	26	Over 100	191	192
82.	76	46	Age not stated	688	711
83.	27	17			
84.	53	18			

1. Includes 3 of 101, 3 of 102, 2 of 103 and 1 of 104, 2 each of 105, 107, 108, 110 and one each of 112, 120 ages.
2. Includes 3 of 101, 2 of 102, 1 of 104, 10 of 105, 2 of 110 and 1 of 120 ages.

Source: *Census of India, 1961, Rajasthan, District Census Handbook, Ganganagar District*, p. 227.

APPENDIX IV

Age and marital status, 1961, Ganganagar district.

Age Group	Total Rural Urban	Total population Persons	Total population Males	Total population Females	MARITAL STATUS: Never Married Males	Never Married Females	Married Males	Married Females	Widowed Males	Widowed Females	Divorced or separated Males	Divorced or separated Females	Unspecified status Males	Unspecified status Females
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
All ages	Total	1,037,423	563,231	474,192	315,826	232,119	227,788	213,337	18,265	27,583	494	378	858	775
	Rural	887,471	479,181	408,290	270,012	200,689	191,747	183,072	16,104	23,400	460	354	858	775
	Urban	149,952	84,050	65,902	45,814	31,430	36,041	30,265	2,161	4,183	34	24	—	—
0–9	Total	345,380	179,233	166,147	179,233	166,147	—	—	—	—	—	—	—	—
	Rural	298,038	154,553	143,485	154,553	143,485	—	—	—	—	—	—	—	—
	Urban	47,342	24,680	22,662	24,680	22,662	—	—	—	—	—	—	—	—
10–14	Total	122,707	65,937	56,770	63,441	49,748	2,114	6,687	29	29	50	50	303	256
	Rural	105,709	56,650	49,059	54,460	42,878	1,813	5,849	24	26	50	50	303	256
	Urban	16,998	9,287	7,711	8,981	6,870	301	838	5	3	—	—	—	—
15–19	Total	82,274	46,097	36,177	36,145	11,685	9,683	24,262	68	93	40	37	161	100
	Rural	68,782	38,156	30,626	29,680	10,100	8,222	20,309	55	82	38	35	161	100
	Urban	13,492	7,941	5,551	6,465	1,585	1,461	3,953	13	11	2	2	—	—
20–24	Total	93,839	49,115	44,724	19,898	2,947	28,764	41,409	303	241	63	40	87	87
	Rural	78,217	40,379	37,838	16,521	2,779	23,476	34,732	240	202	55	38	87	87
	Urban	15 622	8,736	6,886	3,377	168	5,288	6,677	63	39	8	2	—	—
25–29	Total	90,487	49,880	40,607	7,607	203	41,520	39,780	613	497	78	40	62	87
	Rural	76,498	41,563	34,935	6,513	180	34,391	34,213	527	418	70	37	62	87
	Urban	13,989	8,317	5,672	1,094	23	7,129	5,567	86	79	8	3	—	—
30–34	Total	68,902	38,673	30,229	2,707	382	35,118	28,846	743	892	57	44	48	65
	Rural	58,262	32,222	26,040	2,317	371	29,170	24,839	632	725	55	40	48	65
	Urban	10,640	6,451	4,189	390	11	5,948	4,007	111	167	2	4	—	—
35–39	Total	47,326	26,556	20,770	1,359	51	24,359	19,566	771	1,086	40	29	27	38
	Rural	40,165	22,336	17,829	1,150	43	20,453	16,835	667	885	39	28	27	38
	Urban	7,161	4,220	2,941	209	8	3,906	2,731	104	201	1	1	—	—
40–44	Total	48,255	26,814	21,441	1,355	49	24,016	18,959	1,372	2,366	38	34	33	33
	Rural	41,157	22,666	18,491	1,165	40	20,258	16,446	1,175	1,942	35	30	33	33
	Urban	7,098	4,148	2,950	190	9	3,758	2,513	197	424	3	4	—	—
45–49	Total	34,002	19,680	14,322	944	16	17,253	12,095	1,446	2,155	18	29	19	27
	Rural	29,240	16,785	12,454	850	12	14,646	10,602	1,253	1,786	18	27	19	27
	Urban	4,762	2,894	1,868	94	4	2,607	1,493	193	369	—	2	—	—
50–54	Total	37,675	22,390	15,285	991	27	18,769	10,480	2,559	4,710	38	34	33	34
	Rural	32,666	19,399	13,267	864	21	16,218	9,216	2,250	3,966	34	30	33	34
	Urban	5,009	2,991	2,018	127	6	2,551	1,264	309	744	4	4	—	—

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
55–59	Total	15,649	9,305	6,344	389	8	7,331	4,246	1,553	2,068	15	10	17	12
	Rural	13,700	8,146	5,554	341	8	6,413	3,772	1,361	1,752	14	10	17	12
	Urban	1,949	1,159	790	48	—	918	474	192	316	1	—	—	—
60–64	Total	23,807	13,792	10,015	554	31	9,921	4,035	3,266	5,912	32	19	19	18
	Rural	20,798	12,092	8,706	497	27	8,670	3,584	2,876	5,060	30	17	19	18
	Urban	3,009	1,700	1,309	57	4	1,251	451	390	852	2	2	—	—
65–69	Total	7,941	4,905	3,036	187	8	3,329	1,333	1,369	1,688	5	3	15	4
	Rural	7,001	4,384	2,617	174	8	2,958	1,185	1,233	1,417	4	3	15	4
	Urban	940	521	419	13	—	371	148	136	271	1	—	—	—
70+	Total	17,780	10,166	7,614	404	179	5,555	1,586	4,172	5,834	20	9	15	6
	Rural	15,987	9,220	6,767	368	177	5,009	1,447	3,810	5,128	18	9	15	6
	Urban	1,793	946	847	36	2	546	139	362	706	2	—	—	—
Age not stated.	Total	1,399	688	711	612	638	56	53	1	12	—	—	19	8
	Rural	1,251	629	622	559	560	50	43	1	11	—	—	19	8
	Urban	148	59	89	53	78	6	10	—	1	—	—	—	—

Source : *Census of India, 1961, Vol. XIV, Rajasthan, Part II-C (i), Social and Cultural Tables*, pp 28–29.

APPENDIX V

Variation in population of towns in Ganganagar district since 1901

Name of Town	Area of Town	Status of town	Year	Persons	Decade variation	Percentage decade variation	Males	Females
1	2	3	4	5	6	7	8	9
Ganganagar	6.09 sq. km. (2.35 sq.miles)	'M'	1931	9,943	—	—	6,255	3,688
			1941	16,136	+ 6,193	+ 62.29	9,526	6,610
			1951	36,437	+20,310	+125.81	20,814	15,623
			1961	63,854	+27,417	+75.24	36,393	27,461
Hanumangarh	8.08sq.km. (3.12 sq.miles)	'M'	1931	3,468	—	—	2,012	1,456
			1941	5,027	+ 1,559	+44.95	2,913	2,114
			1951	6,837	+ 1,810	+36.01	3,809	3,028
			1961	17,909	+11,072	+161.94	10,043	7,866
Nohar	(50.17 sq.miles 19.37 sq.miles)	'M'	1901	4,698	—	—	2,275	2,423
			1911	5,133	+ 435	+9.26	2,518	2,615
			1921	5,137	+ 4	+0.08	2,571	2,566
			1931	6,089	+ 952	+18.53	3,075	3,014
			1941	9,607	+ 3,518	+57.78	4,906	4,701
			1951	10,836	+ 1,229	+12.79	5,633	5,203
			1961	13,728	+ 2,892	+26.69	7,360	6,368

1	2	3	4	5	6	7	8	9
Karanpur	2.10 sq. k.m.	'M'	1941	7,410	—	—	4,376	3,034
	(0.81 sq.miles)		1951	8,385	+ 975	+13.16	4,984	3,401
			1961	11,551	+ 3,166	+37.76	6,244	5,307
Bhadra	40.92 sq. km.	'M'	1921	3,058	—	—	1,576	1,482
	(15.80 sq.miles)		1931	3,783	+ 725	+23.71	1,977	1,806
			1941	4,750	+ 967	+25.56	2,552	2,198
			1951	6,708	+ 1,958	+41.22	3,561	3,147
			1961	10,000	+ 3,292	+49.08	5,418	4,582
Raisinghnagar	0.78 sq. k.m.	'M'	1951	5,101	—	—	3,807	2,014
	(0.28 sq.miles)		1961	9,493	+ 4,392	+86.10	5,458	4,035
Suratgarh	58.38 sq.km	'M'	1901	2,398	—	—	1,318	1,080
	(22.54 sq.miles)		1911	2,791	+ 393	+16.39	1,490	1,301
			1921	3,592	+ 801	+28.70	1,942	1,650
			1931	3,680	+ 88	+ 2.45	2,072	1,608
			1941	5,186	+ 1,506	+40.92	2,868	2,318
			1951	6,554	+ 1,368	+26.38	3,475	3,079
			1961	8,330	+ 1,776	+27.10	4,654	3,676
Sangaria	16.52 sq.km	'M'	1951	3,879	—	—	2,410	1,469
	(6.38 sq.miles)		1961	8,112	+ 4,233	+109.13	4,596	3,516

1	2	3	4	5	6	7	8	9
Gajsinghpura	0.93 sq.km.	'M'	1951	2,940	—	—	1,650	1,290
	(0.36 sq.miles)		1961	4,681	+ 1,741	+59.22	2,636	2,045
Anupgarh	106.55 sq.km.	'M'	1951	1,612	—	—	891	721
	(41.14 sq.miles)		1961	2,294	+ 682	+42.31	1,248	1,046

'M'=Municipal Town

Source : *Census of India, 1961, Vol. XIV, Rajasthan Part II-A, General Population Tables*, pp. 136–146.

APPENDIX VI

Villages by population groups, Ganganagar district, 1961

District/Tahsil	Total No. of inhabited villages	Total Rural Population			Villages with less than 2,000 population					
					Less than 200			200–499		
		Persons	Males	Females	Number	Population Males	Population Females	Number	Poulation Males	Poulation Females
1	2	3	4	5	6	7	8	9	10	11
Ganganagar District	1,538	8,87,471	4,79,181	4,08,290	343	18,241	14,972	647	1,17,343	1,00,551
1. Karanpur	169	87,962	46,887	41,075	27	1,451	1,164	85	15,589	13,722
2. Ganganagar	253	1,40,674	75,322	65,352	74	2,915	2,432	100	17,694	15,254
3. Padampur	206	84,721	45,286	39,435	62	3,299	2,810	105	19,186	16,603
4. Hanumangarh	160	1,77,110	97,082	80,028	12	706	538	25	4,932	4,052
5. Raisinghnagar	219	76,972	41,427	35,545	59	3,170	2,584	120	21,553	18,346
6. Suratgarh	124	78,767	43,543	35,224	21	1,374	1,084	49	9,244	7,712
7. Nohar	150	1,09,915	58,704	51,211	18	1,007	751	48	8,293	7,423
8. Bhadra	107	85,141	45,574	39,567	14	961	843	35	6,604	5,579
9. Anupgarh	150	46,209	25,356	20,853	56	3,358	2,766	80	14,248	11,870

APPENDIX VI *(Concld.)*

District/Tahsil	Villages with less than 2000 population						II. Villages with a population of 2,000-9,999					
	500-999			1,000-1,999			2,000-4,999			5,000-9,999		
	Number	Population Males	Population Females	Number	Population Males	Population Females	Number	Population Males	Population Females	Number	Population Males	Population Females
1	12	13	14	15	16	17	18	19	20	21	22	23
Gangangar District	321	1,20,221	1,02,761	160	1,16,494	99,616	64	97,410	82,647	3	9,472	7,743
1. Karanpur	40	14,257	12,603	13	9,333	8,204	4	6,257	5,382	—	—	—
2. Ganganagar	43	16,135	13,652	20	14,409	12,700	15	21,371	18,866	1	2,798	2,448
3. Padampur	22	7,291	6,546	15	11,087	9,721	2	4,423	3,755	—	—	—
4. Hanumangarh	56	23,297	19,406	46	34,364	28,569	20	30,514	25,172	1	3,269	2,291
5. Raisinghnagar	34	11,822	10,504	5	3,508	3,010	1	1,374	1,101	—	—	—
6. Suratgarh	33	12,517	10,393	14	10,175	8,000	7	10,233	8,035	—	—	—
7. Nohar	55	21,319	18,282	22	14,844	13,105	6	9,836	8,646	1	3,405	3,004
8. Bhadra	27	9,957	8,480	24	17,854	15,596	7	10,198	9,079	—	—	—
9. Anupgarh	11	3,626	2,895	1	920	711	2	3,204	2,611	—	—	—

Source : *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, pp 112–113.

APPENDIX VII

Population by place of birth, Ganganagar district, 1961

Country/ State where born	Rural Urban Unclassifiable	Enumerated in Rural or Urban area of District								
		Total			Rural			Urban		
		Persons	Males	Females	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8	9	10	11
Total Population		1,037,423	563,231	474,192	887,471	479,181	408,290	149,952	84,050	65,902
A. Born in India	Rural	818,457	442,644	375,813	775,614	417,742	357,872	42,843	24,902	17,941
	Urban	101,774	55,288	46,486	14,177	6,932	7,245	87,597	48,356	39,241
	Unclassifiable	1,577	827	750	1,296	632	664	281	195	86
I. Born in the State of enumeration	Rural	648,472	356,409	292,063	626,994	344,380	282,614	21,478	12,029	9,449
	Urban	82,854	45,434	37,420	8,731	4,180	4,551	74,123	41,254	32,869
	Unclassifiable	839	414	425	676	293	383	163	121	42
(a) Born in place of enumeration	Rural	457,091	277,479	179,612	457,091	277,479	179,612	—	—	—
	Urban	59,101	33,344	25,757	—	—	—	59,101	33,344	25,757
(b) Born elsewhere in the district of enumeration	Rural	137,589	50,782	86,807	128,856	46,455	82,401	8,733	4,327	4,406
	Urban	9,245	4,468	4,777	5,078	2,400	2,678	4,167	2,068	2,099
	Unclassifiable	445	197	248	365	132	233	80	65	15
(c) Born in other districts of the state.	Rural	53,792	28,148	25,644	41,047	20,446	20,601	12,745	7,702	5,043
	Urban	14,508	7,622	6,886	3,653	1,780	1,873	10,855	5,842	5,013
	Unclassifiable	394	217	177	311	161	150	83	56	27
1	2	3	4	5	6	7	8	9	10	11
II. States in India beyond the State of enumeration	Rural	169,985	86,235	83,750	148,620	73,362	75,258	21,365	12,873	8,492
	Urban	18,920	9,854	9,066	5,446	2,752	2,694	13,474	7,102	6,372
	Unclassifiable	738	413	325	620	339	281	118	74	44
(a) Andhra Pradesh	Rural	95	41	54	94	40	54	1	1	—
	Urban	22	17	5	12	9	3	10	8	2
(b) Assam	Rural	18	9	9	12	7	5	6	2	4
	Urban	35	17	18	8	4	4	27	13	14
	Unclassifiable	1	1	—	—	—	—	1	1	—
(c) Bihar	Rural	293	269	24	31	17	14	262	252	10
	Urban	61	40	21	14	7	7	47	33	14
	Unclassifiable	1	1	—	—	—	—	1	1	—
(d) Gujarat	Rural	40	20	20	19	9	10	21	11	10
	Urban	65	33	32	12	3	9	53	30	23
(e) Jammu & Kashmir	Rural	783	451	332	669	347	322	114	104	10
	Urban	148	87	61	85	42	43	63	45	18
	Unclassifiable	3	2	1	2	1	1	1	1	—
(f) Kerala	Rural	62	58	4	56	53	3	6	5	1
	Urban	42	36	6	35	31	4	7	5	2
	Unclassifiable	1	1	—	—	—	—	1	1	—

1	2	3	4	5	6	7	8	9	10	11
(g) Madhya Pradesh	Rural	253	218	35	221	203	18	32	15	17
	Urban	121	66	55	55	37	18	66	29	37
(h) Madras	Rural	19	16	3	2	2	—	17	14	3
	Urban	43	29	14	3	2	1	40	27	13
(i) Maharashtra	Rural	29	19	10	15	9	6	14	10	4
	Urban	74	42	32	31	15	16	43	27	16
	Unclassifiable	1	1	—	—	—	—	1	1	—
(j) Mysore	Rural	10	6	4	1	1	—	9	5	4
	Urban	4	2	2	4	2	2	—	—	—
(k) Orissa	Rural	4	2	2	2	—	2	2	2	—
	Urban	5	3	2	3	2	1	2	1	1
(l) Punjab	Rural	162,198	80,456	81,742	144,230	70,268	73,962	17,968	10,188	7,780
	Urban	15,735	8,031	7,702	4,486	2,215	2,271	11,247	5,816	5,431
	Unclassifiable	692	380	312	606	331	275	86	49	37
(m) Uttar Pradesh	Rural	5,939	4,501	1,438	3,101	2,285	816	2,838	2,216	622
	Urban	1,836	1,106	730	448	261	187	1,388	845	543
	Unclassifiable	34	24	10	10	7	3	24	17	7
(n) West Bengal	Rural	120	93	27	84	69	15	36	24	12
	Urban	237	118	119	68	38	30	169	80	89

1	2	3	4	5	6	7	8	9	10	12
(o) Delhi	Rural	102	64	38	68	44	24	34	20	14
	Urban	487	221	266	177	79	98	310	142	168
	Unclassifiable	2	2	—	—	—	—	2	2	—
(p) Himachal Pradesh	Rural	20	12	8	15	8	7	5	4	1
	Urban	7	6	1	5	5	—	2	1	1
	Unclassifiable	2	—	2	2	—	2	—	—	—
(q) Goa, Daman, and Diu	Unclassifiable	1	1	—	—	—	—	1	1	—
B. Countries in Asia beyond India (including U.S.S.R.)		114,096	63,656	50,440	95,158	53,235	41,925	18,938	10,423	8,515
(a) Afganisthan		1	1	—	1	1	—	—	—	—
(b) Burma		59	40	19	24	15	9	35	25	10
(c) China		7	3	4	7	3	4	—	—	—
(d) Nepal		214	176	38	70	56	14	144	120	24
(e) Pakistan		113,788	63,421	50,367	95,033	53,145	41,888	18,755	10,276	8,479
(f) Singapore, Malaya & British Borneo.		20	10	10	16	8	8	4	2	2
(g) Elsewhere		7	5	2	7	5	2	—	—	—

1	2	3	4	5	6	7	8	9	10	11
C. Countries in Europe (Excluding U. S. S. R.)		1	1	—	—	—	—	1	1	—
(a) United Kingdom		1	1	—	—	—	—	1	1	—
D. Countries in Africa		6	4	2	3	2	1	3	2	1
(a) Elsewhere		6	4	2	3	2	1	3	2	1
E. Countries in two Americas		3	3	—	3	3	—	—	—	—
(a) Elsewhere		3	3	—	3	3	—	—	—	—
F. Countries in Oceania		4	2	2	4	2	2	—	—	—
(a) Australia		2	—	2	2	—	2	—	—	—
(b) Elsewhere		2	2	—	2	2	—	—	—	—
G. Unclassifiable		1,505	806	699	1,216	635	581	289	171	118

Source: *Census of India 1961, Vol. XIV, Rajasthan, Part II–C (ii), Migration Tables*, pp. 16–17.

APPENDIX VIII

Bilingualism—Ganganagar District, 1961

S. No.	Mother Tongue	Total Speakers Males	Total Speakers Females	Total No. of persons returned as speaking a language subsidiary to the mother tongue Males	Total No. of persons returned as speaking a language subsidiary to the mother tongue Females	Subsidiary language
1	2	3	4	5	6	7
	All languages	563,230	474,192	35,066	9,115	—
1.	Arabic/Arabi	2	2	—	—	—
2.	Assamese	8	—	—	—	—
3.	Bagri-Rajasthani	164,793	144,474	4,245	499	Punjabi [M 3,572, F 443,] English [M 492, F 37], Urdu [M, 122 F7] Sanskrit [M 40, F 5], Sindhi [M 10, F 2], Nepali [F 5], Roman [M 5], Bengali [M 2], Assamese [M 1], Marathi [M 1].
4.	Bengali	38	14	29	6	English [M 13, F 6], Hindi [M 16].
5.	Bihari	11	—	1	—	English [M 1].
6.	Bikaneri	8	28	—	6	Punjabi [F 5], Urdu [F 1].
7.	Braj Bhasha/Braj Bhakha	2	1	—	—	—

1	2	3	4	5	6	7
8.	Deswali/Hariani	563	373	33	4	Hindi [M 28], Punjabi [M 3, F 4], English [M 2].
9.	Dhundhari	5	2	—	—	—
10.	English	4	1	2	1	Tamil [M 1, F 1], Urdu [M 1].
11.	Garhwali	1	1	1	1	English [M 1, F 1].
12.	Gujarati	54	38	15	5	Hindi [M 11, F 4], English [M 4, F 1].
13.	Harauti	118	105	—	—	—
14.	Hindi	98,679	80,828	4,203	1,136	Punjabi [M 1,421, F 920], English [M 1,744, F 136], Urdu [M 920, F 38], Sanskrit [M 70, F 7], Sindhi [M 34, F 34], Bengali [M 7, F 1], Gujarati [M 7].
15.	Jaipuri	10	8	—	—	—
16.	Kashmiri	92	4	20	3	Hindi [M 8, F 3], English [M 10], Sanskrit [M 2].
17.	Khari Boli	55,489	44,636	6,479	1,899	English [M 4,810, F 1,081], Urdu [M 920, F 94], Punjabi [M 541, F 424], Sindhi [M 76, F 271], Sanskrit [M 85, F 22], Bengali [M 30, F 5], Gujarati [M 14], Nepali [M 3], Arabic/Arabi [F 2].

1	2	3	4	5	6	7
18.	Malayalam	26	9	21	7	English [M 14, F 2], Hindi [M 7, F 5].
19.	Marathi	25	10	11	3	English [M 7], Hindi [M 4, F 2], Punjabi [F 1].
20.	Marwari	39,486	33,553	1,027	615	Punjabi [M 700, F 592], English [M 271, F 17], Urdu [M 44, F 1], Sanskrit [M 9], Sindhi [M 2, F 5], Nepali [M 1].
21.	Mewari	1	—	—	—	—
22.	Multani	86	87	10	3	Hindi [M 10, F 3].
23.	Nepali	113	27	61	3	Hindi [M 48, F 3], Punjabi [M 13],
24.	Oriya	448	394	148	62	Hindi [M 113, F 29], Punjabi [M 34, F 33], Urdu [M 1].
25.	Punjabi	154,768	131,069	16,211	3,752	Hindi [M 12,660, F 3,325], English [M 1,712; F 356], Urdu [M 1,808; F 67], Sindhi [M 25, F 3], Gujarati [M 4], Malayalam [F 1], Roman [M 1], Sanskrit [M 1].
26.	Rajasthani	41,391	32,852	1,077	406	Punjabi [M 556, F 125], Sindhi [M 198, F 263], English [M 281, F 11], Urdu [M 38, F 7], Sanskrit [M 4].
27.	Rathi	378	326	44	6	Sindhi [M 26], Punjabi [M 14, F 6], English [M3], Urdu [M1],

1	2	3	4	5	6	7
28.	Sansi	188	161	3	—	Urdu [M 2], English [M 1].
29.	Shekhawati	4	—	—	—	—
30.	Sindhi	4,877	3,914	1,269	656	Hindi [M 1,030, F 361], Punjabi [M 158, F 289], English [M 45, F 4], Urdu [M 35, F 2], Gujarati [M 1].
31.	Tamil	38	22	11	6	Hindi [M 5, F 5], English [M 6, F 1].
32.	Telgu	37	2	17	1	English [M 12, F 1], Hindi [M 5].
33.	Urdu	1,487	1,251	128	35	Hindi [M 97, F 30], English [M 23, F 1], Arabic/Arabi [M 5, F 3]. Punjabi [M 3, F 1].

CHAPTER IV

AGRICULTURE AND IRRIGATION

General Agricultural Conditions

Ganganagar district is a cultivators' paradise. The extensive irrigation facilities made available through the three big projects, Gang, Bhakhra and Rajasthan Canals, have created ideal conditions for agriculture, which has now become the mainstay of its people. This district contributes nearly 50 per cent of the cotton and 30 to 35 per cent of the food grains produce of the entire State, and rightly deserves the appellation as the granary of Rajasthan.

The district, in general, has a dry and extreme climate, the temperature sometimes, rising to 122° F in summer and falling to 2 to 3 degrees C below freezing point in winter. The day and night temperature variation also is quite substantial and the rainfall, always scanty and erratic, varies from 90.8 to 384.5 millimetres (7½ to 15 inches) in normal years and goes down to 102 to 127 millimetres (4 to 5 inches) in bad ones. More than 82 per cent of the annual rainfall occurs during the four months from June to September. The soil in the Gang Canal area, however, is very fertile. Hard labour, coupled with improved methods of cultivation result in high yields of almost all the crops grown in this region. The remaining parts of the district, await irrigation facilities from Rajasthan Canal Project, and are almost barren. The average annual rainfall in these areas is only 152 to 203 millimetres (6 to 8 inches) with marked variations. The sub-soil water is 50 to 150 ft. below the ground level and is highly brackish. Its salinity stunts the growth of all vegetation. The soil is generally light loam and when rainfall is good luscious crops of *Bajra*, *Jowar*, *Moth* and *Moong* are harvested. This area too, promises to be a land of plenty and prosperity when the Rajasthan Canal will bring waters to its parched fields.

Co-operative Farming Movement[1]

Though the co-operative farming movement was initiated in the year 1925-26, under the Bikaner Co-operative Societies Act, 1920, it did not

1. Source: Office of the Assistant Registrar, Co-operative Societies, Ganganagar.

make much headway till 1961 when the district was taken up under a Pilot Project Scheme. Ten Joint Farming Co-operative Societies were registered in 1961-62 and, thereafter, till the end of the year 1965-66, 70 farming societies have come into being under the Pilot Scheme and 8 under the non-Pilot Project Scheme.

The progress achieved in the implementation of this programme is shown in the following table :

Particulars	Unit	Year				
		1961-62	1962-63	1963-64	1964-65	1965-66
Societies	(No.)	52	61	82	100	124
Membership	(No.)	906	1,023	1,072	1,495	1,788
Land under cultivation	(hectares)	8,165	6,064	11,434	14,005	7,649
Share capital :						
Government	(Rs.)	20,000	20,000	86,000	1,30,000	1,76,000
Individual	(Rs.)	3,57,434	4,32,699	21,69,659	3,15,515	5,71,973
Borrowings	(Rs.)	5,94,489	6,66,351	7,18,077	7,77,652	9,20,473
Working capital	(Rs.)	9,78,605	17,70,750	31,64,961	14,14,703	18,56,193
Profit (+) or Loss (-)	(Rs.)	- 31,763	- 37,934	+ 16,193	- 23,181	- 56,863
Production	(Rs.)	4,36,427	4,69,563	3,06,158	3,01,017	1,75,246
Sales	(Rs.)	4,22,381	4,69,563	2,98,014	2,77,355	1,74,162

Afforestation

With a view to stabilising the sand dunes and arresting their progress and to save the soil from further damage, afforestation schemes have been given an important place in the district development programmes. Plantation of *Delbergia Sissoo, Albezzia Lebbek, Moris Alba, Prosopis Juliflora* was successfully done on a total area of 808 hectares during the three year period 1961-62 to 1963-64. The expenditure on these schemes

during these three years was Rs. 1,05,994, Rs. 55,463 and Rs. 54,886 respectively. *Dalbergia Sissoo* and *Prosopis Juliflora* along with *Ricinus communis* were again tried in 1964-65 on another 202 hectares, at a cost of Rs. 8,974 and the survival percentage in that year was 90. *Dalbergia Sissoo, AcaciaArabiya,Prosopis Juliflora, Albezzia Lebbek, Salmalia Malabericum,* and *Ailanltus Excelsa* planted on another patch of 161.6 hectares of land in 1965-66, gave 80 per cent survival results. These plantations, besides serving the primary object of stabilising sand dunes particulary along the canal banks, have also helped bring about an improvement in the climate of the area, as also to meet the local demand for fuel and timber. The forests also give shelter to wild animals and birds of rare species found in the district; and, thereby, enhance the richness of its fauna.

IRRIGATION

This is the only district in the State which owes its prosperity mainly to canal irrigation. Rainfall being scanty in most parts, the underground water being brackish and its level low, canals are the only source of water for agriculture. The areas now served by Gang, Bhakhra and the Rajasthan Canal Systems no longer entirely depend upon rains and the future holds a bright promise of extension of canal irrigation to the remaining parts of the district. By 1965-66, 4,40,602 hectares (10,87,414 acres), or 40.35 per cent of the total cultivated area in the district, had received irrigation facilities from various sources. The areas best served are those which come under the command of the Gang and Bhakhra Canals. Among the various tahsils, Ganganagar had the maximum irrigated area of 64,678 hectares (1,59,824 acres) or over 90 per cent of the area under crops. Next came Karanpur with 82.8 per cent (45,012 hectares or 1,11,228 acres) followed by Padampur with 76.2 per cent (43,401 hectares or 1,07,247 acres) of cropped area receiving irrigation. Raisinghnagar, Anupgarh, Sadulshahr, Hanumangarh, Sangaria and Tibi followed next having 64 per cent, 63 per cent, 63 per cent, 57 per cent, 54 per cent and 45 per cent of irrigated areas, respectively. The remaining two tahsils of Nohar and Bhadra (with only 4.5 and 5 per cent respectively of the sown area irrigated) and part of Anupgarh tahsil have predominantly *Barani* lands.

The following table indicates the extent of irrigation through various sources[1] :

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

(Hectares)

Year	Area irrigated by				
	Canals	Tanks	Wells & tube wells	Other sources	Total net area irrigated
1956-57	2,79,254	-	5	-	2,79,259
1957-58	3,14,636	-	5	-	3,14,641
1958-59	3,31,207	-	12	-	3,31,219
1959-60	4,21,535	8	10	230	4,21,775
1960-61	3,57,685	17	12	426	3,58,140
1961-62	4,00,128	-	2	7,447	4,07,577
1962-63	4,42,677	-	4	2,401	4,45,082
1963-64	4,50,437	-	-	1,231	4,51,668
1964-65	5,10,057	-	14	242	5,10,313
1965-66	3,98,437	-	1	61	3,98,499

River and Canal Irrigation

There is no river or stream in the district, except the Ghaggar *Nali*, flowing through the old bed of Saraswati, now extinct. It inundates, when in flood, a large part of Hanumangarh and Raisinghnagar sub-divisions thus irrigating the area through which it flows. The district enjoys the benefits of three major irrigation projects viz., Gang Canal, Bhakhra Canal and Rajasthan Canal, irrigating in all about 5.1 lakh hectares (12.6 lakh acres) of land. A few thousand of hectares (6,107 in 1962-63 and 5,742 in 1963-64) in this area are also irrigated by the Ghaggar Canal. The irrigation system under the Gang Canal is fully developed and covers major portions of the Ganganagar, Karanpur, Padampur and Raisinghnagar tahsils and part of Anupgarh tahsil. The Bhakhra Canal not having attained, so far, its full potential, irrigates only parts of tahsils of Hanumangarh, Tibi, Sadulshahr, Suratgarh, Nohar, Bhadra and Ganganagar. On its completion, the Rajasthan Canal is expected to provide irrigation facilities to the major part of the remaining *Barani* areas of the district.

GANG CANAL SYSTEM—The Gang Canal was constructed as a component of the Sutluj Valley Project after an agreement was reached

between the then Governments of Bikaner, Bahawalpur and the Punjab, in September 1920. Through a net work of its Channels, it has transformed an arid and dry tract of land into a smiling granary. The Canal was completed in 1927 and opened on 26th October, 1927.

The main canal takes off from the left bank of river Sutluj just near Firozpur. At Shivpur, it breaks off into two branches, the feeder and the Laxmi Narainji. The Lalgarh non-perennial branch also takes off from Shivpur. These branches lower down and feed several distributaries and minors forming a network of channels suitably spread all over the Gang Canal Colony.

The cost of the whole project including the share of head works, came to Rs. 310.97 lakhs upto 1943. It does not include the expenditure connected with the development of Gang Canal Colony like construction of railways etc., which itself amounted to Rs. 60 lakhs.

In addition to perennial channels, Laxminarainji Branch and the Feeder, there are 21 distributaries, 65 minors and 943 outlets including 9 mini outlets and 3 garden outlets.

There are two non-perennial channels, the Sameja and the Lalgarh. These were commissioned in 1935 by the then Bikaner State, in order to secure additional *Kharif* crop. In the beginning, the Sameja Branch was opened as a perennial channel along with other channels of the Gang Canal, but was subsequently closed. It was restarted in *Kharif*, 1937, as a semi-non-perennial channel. The reason for this change was that water could not reach the tract easily and instead a better tract was found for irrigation. The Sameja Channel has one distributary, some minors and outlets. Lalgarh non-perennial channel too has some minor distributaries and outlets. Both the non-perennial channels run for about three months in a year. The irrigation is confined to *Kharif* crops and the first watering *(Rauni)* for *Rabi* sowing.

BHAKHRA CANAL SYSTEM—The construction of Bhakhra Canal in Rajasthan was started in the year 1952 and completed in 1957. Thereafter, only works on the construction of tail clusters, small buildings etc. are going on. Irrigation from this canal commenced from July 1954. Perennial irrigation started from the canal after completion of the Bhakhra Dam System.

RAJASTHAN CANAL PROJECT—In accordance with the Indo-Pak River Waters Agreement of 1960, the entire water resources of three

eastern rivers of the undivided Punjab, viz., Sutluj, Beas and Ravi was to be utilised by India. Rajasthan Canal Project is designed to use the waters of Beas and Ravi. When completed, it will be one of the largest irrigation projects in the world, and will transform a vast, inhospitable expanse of desert into a prosperous green belt humming with economic activity. The area to be served by this canal forms part of the great Indian Desert falling in the districts of Ganganagar, Bikaner and Jaisalmer.

The construction of the Rajasthan Canal and field channels has been phased in two stages. The work was started in April 1958, but could not gain momentum before the close of the year. The first stage, to be completed by 1972, envisages construction of the Rajasthan Feeder upto 134 miles and Rajasthan Main Canal upto 124 miles, along with all the branches, distributaries and minors to cater to a culturable command area of 13.40 lakh acres. The second phase will comprise the construction of the main canal from mile 124 to mile 292 (tail) together with all the channels taking off from it. It is proposed to complete the second phase by 1979-80.

About 10,000 labourers were engaged in excavation work in 1965–66, besides 5,000 donkeys, 1,000 carts and 200 earth moving machines. A few were employed as a rehabilitation measure and a large number of famine stricken population were also provided with gainful occupation as famine relief on the site of the works.

The cost of the project, including the cost of Harike Barrage and dams, on the Beas has been worked out at Rs. 184.09* crores as per revised estimates of 1963. Rs. 145 crores are expected to be spent on the works under the first stage including the share cost of Pong Dam and Madhopur Bias link. The per-acre irrigation cost will work out to be approximately Rs. 1089. A provision of Rs. 38 crores was made during the Third Plan period though the actual expenditure came to Rs. 28.06 crores only. The total expenditure incurred since the beginning of the project upto March 1966, has been Rs. 41.80 crores excluding the Punjab share towards the cost of Madhopur Beas link, Harike Barrage and Pong Dam. The physical targets for this period included completion of the Rajasthan Feeder, the main canal and the construction of Naurangdesar, Rawatsar, Suratgarh, Anupgarh and other distributary systems, taking off from main canal. These targets were almost achieved at the end of Third Five

* 1969 estimates put the figure at Rs. 270.45 crores.

Year Plan except for a few works on the Main Canal and on Anupgarh Branch system, which were also nearing completion.

Scope of the Project—Originally conceived purely as an irrigation project, it now envisages power generation also, through the storage of the flood waters of the rivers Ravi and Beas. Canal irrigation, according to the soil classification of the area conducted by the Central Water and Power Con mission, is expected to prove a success as in the case of the Gang Canal. The intensity of irrigation will be 47 per cent for *Kharif* and 63 per cent for *Rabi*. More land could be brought under the command of the canal if additional supplies of water are made available.

Irrigation from this system started first in the year 1962–63 through the Rawatsar, Naurangdesar and Suratgarh distribution system.

IRRIGATION IN THE GHAGGAR VALLEY–As a result of the construction of a number of irrigation and drainage works in its upper catchment in Haryana and the Punjab, the Ghaggar has been bringing heavy flood waters which reached the maximum of 21,500 cusecs, in 1964. 1,500 cusecs of water have been found to be usable for *Kharif* irrigation in Nohar tahsil. Besides, some additional area could also get irrigation facilities through conserved flood waters in pools, lifted to nearby areas. This is expected to involve 3.5 metres to 30.5 metres (10 feet to 100 feet) of lifting and a good amount of power. The project named as Nohar Irrigation Project is still under the investigation stage. While providing irrigation facilities, the project will save the area from the devasting effects of Ghaggar floods, turning a veritable bane into a boon.

Lakes and Tanks

There is only one lake[1] in Hanumangarh sub-division of this district, known as Talwara *Jhil* which is situated in the Ghaggar *Nali* bed area. This is a very small lake unfit for irrigation.

The climatic conditions in the district generally do not permit storage works on a large scale. A considerable area in the south-west, however, has favourable soil and impervious sub-strata, opening possibilities for building up of storage tanks for irrigation.

Well-irrigation

With scanty rainfall, the spring level in most parts of the district, is very deep, ordinarily ranging from 30.5 metres (100 ft.) in the Gang

1. *Census 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar, Part I,* pp. 77-79.

Canal Colony, to 30.5 metres to 46 metres (100 ft. to 150 ft.) below ground level, on an average, outside this area. The chances of well irrigation are, therefore, scanty, except in a few favoured localities in the east and south-east where spring level is not deep due to comparatively better rainfall and other causes, like the rise in the sub-soil water by 15.2 to 30.5 centimetres (6" to 1'). The number of wells in 1963-64 in the tahsils, having wells, was as follow:

Tahsil	No. of wells		
	Old	New	Out of use
1. Hanumangarh	1	3	—
2. Suratgarh	74	1	20
Total	75	4	20

TUBE-WELLS—The tube-wells serve as a subsidiary and supplementary source of irrigation, particularly as this district suffers from an acute and frequent problem of rotational closure of distributaries. The work of boring of tube wells has been hastened through a scheme of advancing loans to the cultivators at the rate of 50 per cent of the cost. Under the scheme, 150 wells were to be completed by the end of the Third Five Year Plan, at a total cost of Rs. 17 lakhs, besides an amount of Rs. 21 lakhs, to be spent for extending power lines to the *Chaks* where wells exist. In case a well struck brackish water, it was to be replenished by water in proportionate quantities from the canals. 68 tube wells had been bored upto the end of the year 1965-66[1], 7 in Ganganagar tahsil and 61 in Tibi tahsil. A total of 1.21 hectares of cultivated area received irrigation through wells and tube-wells in 1965-66.

Irrigation by crops

The following table shows the irrigated areas under important crops during the last three years, 1963-64 to 1965-66[2]:

(Hectares)

Crop	1963-64	1964-65	1965-66
Cereals and Millets			
Rice	3,241	3,110	5,529
Jowar	15,174	15,063	3,201
Bajra	7,604	17,231	15,539

1. Source : Board of Revenue, Rajasthan, Ajmer.
2. ibid.

1	2	3	4
Maize	1,034	1,082	1,151
Wheat	1,00,343	1,09,833	83,123
Barley	3,865	4,381	7,769
Pulses			
Gram	1,13,150	1,34,633	83,779
Tur	12	9	60
Other pulses	1,332	2,548	4,453
Sugarcane	4,801	5,506	8,899
Condiments and spices	615	473	308
Fruits and vegetables including root crops	5,366	5,191	4,255
Other food crops including cereals and millets	23	43	21
Total under food crops	2,56,560	2,99,117	2,18,089
Oilseeds			
Groundnut	14	89	237
Sesamum	24	85	71
Rape & Mustard	19,737	16,961	3,756
Linseed	23	31	21
Others	2,536	2,797	2,072
Total under oilseeds	22,334	19,963	6,157
Cotton	1,04,038	1,04,128	1,34,567
Tobacco	14	7	8
Fodder crops	68,285	86,590	80,765
Other non-food crops	440	508	475
Total under non-food crops	1,95,111	2,11,196	2,21,972
Total under all crops	4,51,671	5,10,313	4,40,061

It appears from the above table that the irrigated area in 1965-66 was almost equally covered by food and non-food crops. However, due to

better prices and quick marketability of cash crops, the irrigated area under non-food crops has been increasing in proportion, at the expense of the food-crops area. Irrigated area under cotton, in particular, has gone up by about 25 per cent during the three years under reference. Amongst the food crops, wheat has been the most important cereal crop and gram the most important pulse, and both together claim round about 2/3rd of the total watered-area under food-crops in every one of these years. The ever-increasing demand for sugarcane has led to almost doubling of the irrigated area under it, during this short period,

SOIL EROSION

Soil erosion in Ganganagar district is caused by the winds and consequent shifting of the sand dunes. The rainfall being scanty, the water erosion poses no problem. The wind-affected land erosion is particularly marked in those parts of the district which are devoid of canal irrigation.

Soil Conservation

A special scheme for soil conservation in the district was taken up during the year 1961-62, under the supervision of the District Agriculture Officer, Hanumangarh Town. The work was transferred to an Assistant Soil Conservation Officer, appointed in June 1962, with head-quarters at Ganganagar, who is assisted by 5 Soil Conservation Assistants, 15 Fieldmen and other field staff[1].

The scheme includes surveys and planning for irrigation layouts and ground levelling, soil conservation work in the desert area and government occupied land and distribution of seeds and fertilisers. It was initially sanctioned for land levelling in the Rajasthan Canal area only, but was later on extended to Bhakhra area also. The land levelling is being done by using heavy earth-moving machinery such as tractors and bulldosers, which are used, in turn, for selected compact areas. Sangaria, Bhadra and Hanumangarh circles were the first to be taken up during 1962-63 for this work. To check land erosion, dry farming and natural vegetation are also being popularised in the unirrigated areas. An expenditure of Rs. 1,52,588 was incurred on various works connected with soil conservation during the Third Five Year Plan. An additional sum of Rs. 20,000 was sanctioned in March 1966 for conducting a survey for land levelling of 1,083 hectares (2,676 acres) in the above mentioned three circles. Another

1. The headquarter of District Soil Conservation Officer (new designation) has since been transferred to Hanumangarh Town.

971 hectares (2,400 acres) are expected to be brought under the Scheme by the end of 1966-67. The Agriculture Department also advances loans and subsidies to the cultivators to take up the work of soil conservation according to departmental specifications. Besides, brick-lining of channels, construction of division boxes and threshing floors, and levelling is also being done at Government Agriculture Farms at Ganganagar, Padampur and Hanumangarh. Sand-dune fixing and land fencing (*Med Bundi*) programme is shortly (by 1966-67) to be started near Suratgarh.

To popularise soil conservation measures, particularly in canal irrigated and desert areas, an exhibition was arranged in Gogameri Cattle Fair in August-September 1965 and the various methods were demonstrated to about 10,000 cultivators. Training camps at the district and Panchayat Samiti levels are also arranged to make the officers-in-charge like the Vikas Adhikaris, Agriculture Extension Officers and District Agriculture Officers and village-level workers, conversant with the know-how of soil conservation. Paucity of technical staff, machinery and equipment and also of unskilled labour have hampered the execution of the soil conservation programme in the district.

During the Third Plan period, as a result of intensive effort at soil conservation, the following achievements are worth mentioning:

	Particulars	Unit	Achievement
1.	Surveys and Planning for land levelling	Number	2,000
2.	Bunding by Bull-dosers	Hectares	3,708
3.	Levelling and Grading	,,	1,273
4.	Stable Mulching	,,	5,329
5.	Irrigation layout demonstrations	Number	31
6.	Land levelling demonstrations	,,	4
7.	Training Camps organised	,,	5
8.	Exhibition Camps organised	,,	3
9.	Demonstrations of Canwas check dams	,,	158
10.	Wind Break Plantations	,,	148,440
11.	Soil Conservation work in Desert Area (Stable Mulching)	Hectares	982

Particulars	Unit	Achievement
12. Soil Conservation work on Government Agriculture Farms		
(a) Construction of pukka irrigation channels	Number	3,630
(b) Construction of Division Boxes	,,	2
(c) Mud Plaster of fence walls	,,	135

USE OF WATER-RESOURCES IN RAJASTHAN CANAL AREA[1]—Allotment of land, falling under the Rajasthan Canal command on a permanent basis, has been taken in hand. A bull-grader, a ditcher and a leveller have been deployed to aid the cultivators in getting their holdings levelled' and in making proper layouts for *Chak* outlets and main *Khalas* before the supply of water reaches the canals, designed to serve the particular region. It is expected that the water potential would be sufficient to settle 10 to 15 thousand families on land.

AGRICULTURE

Soils

Nature has endowed the district with fairly rich soil. It is generally sandy and sandy loam, and is deep and well drained with moisture-retaining characteristics which have proved very salubrious for the production of food and cash-crops. The Ghaggar-bed area, which is flooded every year, has soil of clay to clay loam, rich in organic matter and nitrogenous content. The district can be broadly classified in respect of its soil in the following categories :

(i) SOFT AND PLAIN SOIL—This soil is sandy at the top to a depth of 15.2 to 22.8 cm. (6″ to 9″) with hard clay underneath. It is alluvial in nature and congenial for crop production. It is highly retentive of moisture and varies in texture from sandy loam to loam and some times to clay loam. It is fairly rich in potash while its phosphatic and nitrogenous contents are normal, but it is deficient in organic matter. This type of soil mostly abounds in tahsils of Ganganagar, Padampur, Raisinghnagar and parts of Hanumangarh and Suratgarh, and is most suited for the production of all food and non-food crops, except paddy.

1. Source : Office of the District Agriculture Officer, Ganganagar.

(ii) HARD CLAYEY SOIL—This soil is generally hard and varies from clay to clayey loam and, in a few exceptions, loam. This soil is stiff and impervious to drainage with the result that obnoxious magnesium and sodium salts accumulate, reducing it to a sterile state known as *Kallar*. The degree of salts and organic matter contents in this soil vary from place to place. It retains moisture for a longer period but is hard to break and requires thorough operations. It is particularly suitable for paddy, sugarcane, *Jowar* and *Sarson*. Wheat and maize can also be grown but cotton growing is rarely successful in this soil. This type of soil is found in parts of Hanumangarh, Suratgarh and Anupgarh tahsils.

(iii) SANDY SOIL—This type of soil contains pure sand and is poor in quality. It is found in patches with scattered sand dunes or thick layers of sand spread over some low-lying parts of land, having good clayey soil. This fact makes the properties of this soil variable, with poor and easy-to-work sandy parts and hard but rich clayey portions susceptible to good production with rain or irrigation water. A common saying about this type of soil is *Gili Gobar, Sookhi Loha,* which means that it is soft like cowdung when wet, and hard like iron when dry. All sorts of *barani* crops, particularly *Bajra, Jowar* and pulses like *Moong* and *Moth* are sown in Nohar, Bhadra and parts of Anupgarh and Suratgarh tahsils, where this type of soil predominates. Wheat and barely are also being cultivated in these areas when enough water is available at the time of sowing through rains or artificial irrigation.

Soil classification, for purposes of Revenue Settlement, depends on depth of soils, the availability of water due to irrigation facilities and the location of the fields. The Settlement reports divide soils broadly as follows:

[1] Cultivated Land—

(a) *Nehri*—Canal irrigated land
(b) *Barani*—Land depending on rains

[2] Uncultivated land—

(a) *Banjar Jadir*—Land remaining unsown for four successive harvests
(b) *Banjar Khadin*—Sand remaining unsown for eight successive harvests
(c) *Gair Mumkin*—Land which has for any reason become unculturable, such as land under roads, buildings, canals, tanks etc., or the land which is just barren.

The classes of soil found in Ganganagar district have been divided into seven categories of *Nehri*, *Pala*, non-*Pala*, *Banjar*, *Nali*, *Rohi* and *Dhora*. In the canal commanded areas of tahsils Ganganagar, Karanpur, Raisinghnagar, Padampur, Anupgarh (Bijainagar area) and Suratgarh, land irrigated from canals or the flood waters of Ghaggar *Nali*, has been classified as *Nehri*. Lands with this soil classification are the richest in the district and produce major portion of its foodgrains, pulses, cotton and oilseeds. The unirrigated lands of the above mentioned tahsils have been classified as *Nali*, *Rohi* and *Dhora*. *Nali* soil, on which rain waters during monsoons leaves moisture, is helpful for the sowing of certain *Rabi* crops. *Rohi* is less fertile soil of the *Nali* type, and *Dhora* is the uncultivated barren land with sand dunes. The remaining parts of the district, such as Nohar, Bhadra and Hanumangarh and part of Anupgarh tahsil, which are outside the canal command have *Pala*, Non-*Pala* and *Banjar* types of soils. *Pala* is comparatively more fertile than the Non-*Pala* type. The major crops sown in such soil are *Guar*, *Bajra* and *Moth*, though barley, wheat, *Jowar*, *Moth*, *Moong* and some oilseeds are also sown. The unculturable areas are classed as *Banjar*.

Crops

Of the total cropped area of 11,38,936 hectares (28,14,372 acres) in 1965–66, 62.4 per cent was devoted to the growing of food crops i.e. foodgrains, pulses, fruits, vegetables, condiments etc. Oil-seeds accounted for another 1.4 per cent of the total area, and 11.8 per cent was claimed by fibre crops (cotton and samhemp). The remaining 24.4 per cent was shared by other miscellaneous crops.

Amongst the foodgrains, *Bajra* is most widely grown, claiming nearly 24.5 per cent of the total area (1965-66) under cultivation of foodgrains But wheat takes the palm in quantity of produce, as its total production was nearly 7 times that of *Bajra*, though it was grown only on about half of the area covered by the latter. Barley is also an important crop of the district, sown on an area next to *Bajra* and wheat. Next comes rice, if the total production is considered, but *Jowar* takes precedence from the point of view of total area under the crop. Other important foodcrops of the district are gram, *Kharif* and *Rabi* pusles and chillies and sugarcane. Important oilseeds grown in the area are rape and mustard, sesamum, groundnut and linseed. Cotton is grown in two varieties, *Desi* and Punjab-American, the production of the latter being about 2½ times of the former. It is, of course, the most important cash crop of the district. Due to a rising trend in the prices of cash crops, more and more of the cultivated area is being brought under their cultivation.

BAJRA (Balrush Millet-*Pennisetum typhoideum Pers.*)—*Bajra* is one of the most important millet crops of the district. It is ground into flour and prepared as a mash or unleavened bread, or fried to serve as a nutritious dish. Its chaff is used as cattle fodder and for thatching purposes. It is almost rainfed and raised during the *Kharif* season all over the district, especially in the *Barani* tahsils of Bhadra and Nohar, which claim about 2/3rd of the total area under the crop Poorer soils, but warm climate with low rainfall or light showers, followed by bright sunshine during its growth period, provide the ideal conditions for the cultivation of *Bajra*. It is grown both as a pure and as a mixed crop. As a pure crop, it may be rotated with cotton or wheat and as a mixed crop it may be sown along with *Moong*, *Urad*, *Moth*, sesamum etc. Two varieties of *Bajra*, hybrid and *Desi*, are grown in the district.

The land is ploughed two or three times or worked with the blade harrow after the first showers of regular monsoon. The tillage begins by the end of March and continues till the end of April. The sowing period ranges between the last week of June and the third week of July, depending upon onset of the rains. The seed may be sown broadcast or in rows (12 to 15 inches apart) by three or four coultered drill. The seed rate varies from 2.5 to 4 kg. per hectare (1 to 1.5 kg. per acre) for the pure crop and 1.25 to 2 kg. per hactare (1.5 to 0.75 kg. per acre) for the mixed crop, the proportion of the subsidiary crop depending on the needs and whims of the cultivator. In the Canal Colony and other irrigated parts of the district, one watering is given round-about the month of September. Barely any manure is applied. Usually one hand weeding and hoeing is given between the third week of August, and the second week of September.

The average yield of hybrid and *Desi* varieties in the district comes to about 1600 kg. and 800 kg. per hectare respectively. A well manured irrigated crop may yield approximately 2 to 3 times the yield from a dry crop. The straw yield too is in proportion of 1:2 for a dry and an irrigated crop.

This crop was sown on a total of 1,70,646 hectares (4,21,676 acres) in 1965-66 and the total production was 8,416 tonnes (8,238 tons), which was mainly concentrated in Nohar, Bhadra and Suratgarh tahsils, occupying 72,853 hectares (1,80,025 acres), 43,052 hectares (1,05,383 acres) and 23,975 hectares (59,242 acres) respectively. The crop also occupied 5,349 hectares (13,217 acres) in Raisinghnagar, 4,478 hectares (11,065 acres) in Tibi, 4,246 hectares (10,492 acres) in Sangaria, 3,886 hectares (9,604

acres) in Hanumangarh, 3,637 hectares (8,987 acres) in Padampur, 2,804 hectares (6,928 acres) in Ganganagar, 2,646 hectares (6,538 acres) in Karanpur, 2,369 hectares (5,855 acres) in Sadulshahr and 1,351 hectares (3,340 acres) in Anupgarh tahsils.

JOWAR OR SORGHUM *(Sorghum Vulgare Pers.)*—Amongst the *Kharif* foodgrain crops, *Jowar* comes next to *Bajra* occupying second largest area in Ganganagar district. It is mostly used as fodder, commonly known as *Chari*. Its chaff, green or dry is a nutritious cattle fodder. It is ideally suited for cultivation in areas of moderate rainfall. Excessive soil moisture and prolonged drought are both harmful to the crop.

The soil preparation, tillage as also the sowing and inter-culturing periods of *Jowar* are similar to those of *Bajra*. The crop is grown pure or mixed with one or two pulses or oilseeds. Land is ploughed twice or thrice with indigenous plough or worked with harrow blade, producing compact soil at the root-zone. Being a heavy feeder, it requires a basic application of farmyard manure or compost, normally at the rate of twelve cartloads (about 6 tonnes) per hectare. The seed rate for the grain crop ranges from 8 to 12 kg. per hectare (3 to 4 kg. per acre) while for fodder from 25 to 30 kg. per heactare (10 to 12 kg. per acre]. *Chari-Jowar* is sown early in April and May, and is harvested by the end of May. The grain crop takes four to five months to mature and is ready by the second week of November, when the harvesting starts, and continues till the second or third week of December.

The crop was sown on an area of 7,544 hectares (18,643 acres) in 1965–66, in the district and the total yield, as per crop-cutting experiments, was estimated at 127 tonnes (125 tons). The largest area (3,233 hectares or 7,989 acres) under this crop was sown in Nohar tahsil, followed by Anupgarh (1,291 hectares or 3,190 acres) and Suratgarh (1,047 hectares or 2,588 acres). Other *Jowar*-growing tahsils were Bhadra (935 hectares or 2,311 acres), Tibi (579 hectares or 1,432 acres), Hanumangarh (207 hectares or 511 acres), Padampur (133 hectares or 329 acres), Karanpur (68 hectares or 167 acres), Raisinghnagar (23 hectares or 58 acres), Sangaria (19 hectares or 47 acres) and Sadulshahr (9 hectares or 21 acres).

MAIZE *(Zea Maya L.)*–It is essentially a rich land crop and grows best on fertile, well drained loamy soil, which is neither too heavy nor too light. The irrigated land under the Gang and the Bhakhra Canals are best suited for the crop. Essentially a warm-season crop, maize needs plenty of moisture in the early stages of growth and it is provided through canal irrigation in the district.

The periods of tillage and soil preparation, as also of sowing, are similar to *Bajra* and *Jowar*. For green cobs, maize is sown in irrigated fields, early in April–May and the stalks are used for fodder. The crop requires thorough ploughing and a fine seed-bed. Starting soon after the *Rabi* harvest, an initial ploughing is rendered with a soil investing plough, followed by four to six ploughings with light *Desi* plough, and each ploughing is followed by planking. The usual rate of manuring, essential for the crop, is 25 to 38 cartloads of cattle manure or compost per hectare. Due to slow initial growth the crop needs careful weeding while young i.e. within about 2 months of sowing. One or two hand weedings, followed by two or three hoeings with a bullock hoe, cultivator or *Desi* plough are generally sufficient.

The grain crop is harvested when fully mature i. e. when the sheaths turn brownish and the grains become fairly hard and dry. The cobs are removed from the standing plants, kept in the sun to dry and then beaten with sticks to separate the grain. The crop grown for fodder is cut when tassels make their appearance. The harvesting period lasts from the end of September to the 10th of November.

The total area sown and production of maize in the district in 1965-66 were 1,199 hectares (2,963 acres) and 1,037 tonnes (1,021 tons) respectively. This crop was cultivated in 367 hectares (906 acres) in Anupgarh tahsil and in 282 hectares (696 acres) in Tibi tahsil. Raisinghnagar (128 hectares or 316 acres), Hanumangarh (116 hectares or 286 acres), Suratgarh (86 hectares or 213 acres), Padampur (81 hectares or 200 acres), Ganganagar (72 hectares or 179 acres) and Karanpur (49 hectares or 122 acres) were the other important tahsils, growing the crop on a smaller scale.

RICE *(Oryza Sativa)*—Rice was sown on 6,129 hectares (16,128 acres) in 1965–66 which came to about 0.85 per cent of the cultivated area under foodgrains in the district. The growth of the crop has been made possible with the help of artificial irrigation from canal-waters in the semi-arid tracts of the district. The hard clayey soil of Hanumangarh, Suratgarh and Anupgarh tahsils, with its moisture-retaining quality, is particularly suited for paddy cultivation, though it is sown, to some extent, in Raisinghnagar tahsil also. The land for paddy sowing is given summer cultivation followed by puddling and tillage. Soil preparations start from the middle of May and continue till the end of June. Puddling with tractor and tractor-implements is done by progressive cultivators. The actual sowing is done during the months of June and July. It requires atleast 4 to 6 waterings after sowing, and levelling of fields to hold water

evenly, and 2 to 3 inter-culturings. The crop thrives best under conditions of high temperature and humidity. Water is allowed to stand in the field to a depth of 2.54 to 5.00 centimetres till the transplanted seeds are well set and, thereafter, 5.08 centimetres (two inches) of it maintained upto the dough stage, with frequent draining and repeated irrigation. A week or two before harvesting, water is drained off from the field to encourage a quick and uniform maturity of grain. Harvesting period is October-November. Crop is cut with a sickle and dried in the field for three or four days, stacked in the threshing yard for another week or so, and then threshed by either beating the sheaves or treading over under the feet of bullocks, or sometimes with the help of a Pedal Thresher.

Rice cultivation over 6,129 hectares (16,128 acres) in 1965-66 was mainly concentrated in Tibi (2,097 hectares or 5,183 acres), Anupgarh (1,870 hectares or 4,620 acres) and Hanumangarh (1,548 hectares or 3,825 acres) tahsils. Other tahsils growing rice were Suratgarh (450 hectares or 1,111 acres), Sangaria (150 hectares or 370 acres) and Raisinghnagar (14 hectares or 34 acres). The production of rice was insignificant in Ganganagar and Sadulshahr tahsils, covering only 0.4 hectare (1 acre) each in the same year.

WHEAT *(Triticum Spp.)*—Wheat is the most important food grain crop of the district from the point of view of total production. Its wholemeal flour is used by the middle and upper classes as a staple food. Chaff serves as a cattle fodder.

A cool winter makes this Indo-Gangetic plain region of well drained loams and clay loams, one of the best wheat-producing areas of the country. Nearly 80 per cent of the crop is canal irrigated while the rest, mostly in the *barani* areas, is rainfed. Although continuous drought conditions have considerably reduced production, the quality of grain produced in the dry areas is generally superior to that in humid or irrigated regions. *Triticum aestivam L.*, the bread wheat forms the bulk of the wheat crop in the district.

Preparations for wheat sowing start by the third week of April and last till about the 10th of May, in the first instance, when three or four ploughings are done in summer for laying down a well pulverised but compact seed-bed for good and uniform germination. Repeated harrowings in the rainy season, followed by three or four cultivations, also help this. The soil preparation for sowing lasts from about 10th of September to 15th of November. For irrigated crop, the land is watered before sowing. 90 kg. per hectare is the most common seed

rate. The first watering to irrigate wheat is normally given one month after sowing. Two to three waterings, at tilling, heading and milt stage, suffice in the canal irrigated areas, while in *barani* areas no irrigation is possible. One hoeing, one and a half to two months after sowing, proves very beneficial for better yield from the crop.

The crop is harvested when the grain is fully ripe and the straw becomes golden yellow and brittle. Harvesting begins about 10th of April and lasts till mid-May and this operation is usually performed with a sickle. The grain is generally threshed out by being tread over by the cattle under their feet on a threshing floor. Simple mechanical threshers and winnowers are now being used by some progressive farmers. The average out-turn of the crop in the district has been estimated at about 873 kg. per hectare, as per crop-cutting experiments. The yield of straw is generally one and a half to two times that of the grain.

88,971 hectares (2,19,853 acres) of area, on which wheat was sown in the district in 1965-66, yielded 58,453 tonnes of wheat. All the tahsils served by canals shared in this venture though the largest area, 15,717 hectares (38,838 acres) under this crop was sown in Ganganagar. Next in this order were Karanpur (11,719 hectares or 28,958 acres), Padampur (10,122 hectares or 25,013 acres) and Raisinghnagar (9,210 hectares or 22,757 acres). Anupgarh, Sangaria, Suratgarh, Sadulshahr, Hanumangarh and Tibi had 7,622 hectares (18,835 acres), 7,564 hectares (18,692 acres), 6,732 hectares (16,636 acres) 6,199 hectares (15,319 acres), 6,059 hectares (14,971 acres) and 5,178 hectares (12,794 acres) respectively. The cultivation of the crop was not significant in the tahsils of Nohar (1,694 hectares or 4,186 acres) and Bhadra (1,155 hectares or 2,855 acres).

BARLEY *(Hordeum Vulgare)*—From the point of view of the area covered and the yield, this is an important *Rabi* food-crop of the district. In 1965-66, it was sown on about 2.1 per cent of the total cultivated area producing 8,294 tonnes (8,163 tons) of barley. Generally cool winters found in most parts of the district and well-drained and light loam soils of the irrigated tahsils are ideal for boosting the production of the crop. Tillage, soil preparation and sowing periods and rotation for barley are akin to those for wheat. It is grown either by itself or mixed with wheat or gram, and sometimes even with rape and mustard. The optimum sowing period is from the middle of October to the middle of November. The preparations for sowing break into a post-harvest ploughing from the third week of April to the second week of May. Three or four ploughings with the *Desi* plough or one

ploughing with the improved iron plough and one harrowing are generally regarded as adequate. The soil preparations last about five weeks, between the 10th of September and 15th of November, followed immediately by actual sowing. It requires less irrigation than wheat and is generally watered thrice, once at the beginning of January, again in the middle of February and for the third time during the first week of March. Inter-culturing is resorted to where the soil is very weedy, during the month of January. Seed rate varies from 55 to 65 kg. per hectare.

Harvesting of the crop lasts from the third week of March to the middle of April and its methods, as those of threshing, are also similar to those for wheat. The average yield is about 1,095 kg. per hectare for the whole district, though the irrigated crop usually produces as much as double the yield of the dry one.

The crop was sown on a total area of 23,696 hectares (58,555 acres), covering almost all the tahsils of the disrict in 1965–66. Nohar had the largest area i.e. 4,039 hectares (9,981 acres) under barley, followed by Suratgarh (3,231 hectares or 7,984 acres) Raisinghnagar (2,914 hectares or 7,202 acres), Padampur (2,679 hectares or 6,620 acres), Ganganagar (2,309 hectares or 5,705 acres), Karanpur (2,098 hectares or 5,184 acres), Tibi (1,579 hectares or 3,902 acres), Hanumangarh (1,387 hectares or 3,428 acres), Sadulshahr (1,294 hectares or 3,197 acres), and Sangaria (1,136 hectares or 2,806 acres). The area under this crop was least in the remaining two tahsils of Anupgarh (683 hectares or 1,688 acres) and Bhadra (347 hectares or 858 acres).

PULSES—The important pulses grown in the district include gram and *Masur* during the *Rabi* and *Arhar*, *Moong*, *Moth*, *Chanwala* and *Urad* during the *Kharif* seasons. Pulses were sown on a total of 3,97,532 hectares (9,82,322 acres) in 1965–66. 2,97,659 hectares (7,35,378 acres) were under the *Rabi* crops, while *Kharif* pulses were grown on 99,873 hectares (2,46,944 acres).

GRAM (*Cicer arietinum*)—It is by far the most important pulse-crop of the district and is sown in about 75 per cent of the total area under pulses, both in *Kharif* and *Rabi*, and almost 99.9 per cent of the area sown under them in *Rabi* (1965-66). The gram raised in the district is of R.S.10 and Bengal varieties and is grown in abundance in all the tahsils of the district. In 1965–66, the miximum area was in Nohar tashil (81,472 hectares or 2,01,322 acres) followed by Bhadra (50,004 hectares or 1,23,564 acres), Suratgarh (43,938 hectares or 1,08,572 acres) Hanumangarh (30,830 hectares or 76,182 acres), Tibi (27,293 hectares or 67,444 acres), Sangaria (17,884 hectares or 44,190 acres), Sadulshahr (13,810 hectares or 34,127 acres), Padampur (9,331 hectares or 23,059 acres), Raisinghnagar (7,304 hectares or 18,049 acres), Karanpur (6,584 hectares or 16,269 acres) and Ganganagar (6,190 hectares or 16,269 acres). Anupgarh tahsil had the least area (2,787 hectares or 6,886 acres) under gram. The crop, though generally sown as *Barani*, is given two waterings in the canal served areas, one at the time of sowing and the other at about flowering time i.e. by the end of January. The operations for the preparation of land are the same as for wheat except that no fine tillage is attempted. The soil preparation begins about 20th of April, continuing for about 20 days. Summer follows ploughing. Gram is generally rotated with *Jowar*, *Bajra*, wheat and occasionally with rice. The final pre-sowing tillage ranges between 25th of September and 15th of October and the optimum period of actual sowing between 1st and 20th of October. The crop is rarely weeded or inter-cultured. Usually this crop suppresses the growth of weeds. It matures in about 160 to 170 days and is usually harvested between the 20th of March and the 2nd week of April. The average yield, according to the crop-cutting estimates, is 618 kg. per hectare for the whole district, the irrigated crop producing about 1½ times more than the dry one. The production of gram in 1965-66 was 73,762 tonnes (72,532 tons).

ARHAR (*Cajanus Indicus*)—*Arhar* was grown on 61 hectares (151 acres) in 1965-66, predominantly concentrated in tahsils of Suratgarh (11 hectares or 27 acres), Hanumangarh (7.6 hectares or 19 acres), Sadulshahr and Padampur (7.2 hectares or 18 acres in each), Karanpur (6 hectares or 15 acres), Ganganagar and Sangaria (with 5·6 hectares or 14 acres each). Preparation for sowing of the crop begins by the end of June or beginning of July, with the onset of the monsoon, followed by sowing in July-August. Irrigation is not required for the crop, though it is provided in the canal areas when rains are inadequate. Harvesting is done in December for early varieties and in March-April for late varieties.

COTTON (*Gossypium Sp.*)—Cotton is perhaps the most important gift of canal irrigation to Ganganagar district. The area under the crop is progressively increasing with the expansion of Canal irrigation and stood at 1,34,602 hectares (3,32,608 acres) in 1965-66, the third largest area under any crop, in the district. Almost half of it was in the Gang Canal Colony and another one-fourth or so in the irrigated portions of Hanumangarh and Suratgarh tahsils.

Two varieties of cotton, viz., *Desi* and Punjab-American are grown in the district. The *Desi* cotton is generally coarse and short-to-medium-stapled, while the latter variety is fine and medium-to-long-stapled.

Cotton is a sub-tropical crop and requires a lot of watering through rains or canals during the early stages of its growth, and a comparatively dry spell during its flowering and fruit stages. Alluvium soil of the district, through its amenability to good drainage, is well suited for it. The crop is susceptible to water-logging. The time of sowing is generally mid-April to end of May, which is preceded by soil preparations in the months of March-April and April-May for the two varieties, respectively. The seed rate is generally 6.5 to 11 kg. per hectare (6 to 10 lbs. per acre) for *Desi* and 11 to 13 kg. per hectare (10 to 12 lbs. per acre) for Punjab-American. The American variety requires a total of 3 to 5 waterings in all, at the beginning and end of May and three to four weeks after the seeds have germinated. Further watering is timed according to the rainfall and in the absence of rains, watering is done in the beginning of June and then at the end of that month. The need for water seems to be pressing at the time of flowering and fruitage at the end of October, when the last watering is provided. Inter-culturing, wherever the preparatory tillage is perfunctory, is done pretty often, between mid-June and mid-July for the irrigated crop and 20th of July and 20th of August for the *Barani* crop.

Cotton is harvested in three to five pickings, as the balls mature, according to the variety and the time of sowing, and the harvesting season, thus, lasts from the end of September to the end of December. The average yield of cotton in the district has been estimated at 147 kg. per hectare.

Cotton is grown throughout the district and amongst the tahsils, Ganganagar had the largest area amounting to about one-fifth (25,260 hectares or 62,419 acres) of the total area under the crop in the district, followed by Karanpur and Padampur with 18,276 hectares (45,160 acres) and 16,733 hectares (41,347 acres) respectively. Other tahsils producing this crop, arranged in the descending order, were Sangaria (14,879 hectares or 36,767 acres), Raisinghnagar (13,150 hectares or 32,495 acres), Sadulshahr (12,313 hectares or 30,426 acres), Hanumangarh (10,907 hectares or 26,952 acres), Suratgarh (8,426 hectares or 20,821 acres), Tibi (7,888 hectares or 19,491 acres), Anupgarh (2,765 hectares or 6,832 acres), Bhadra (2,549 hectares or 6,300 acres) and Nohar (1,456 hectares or 3,598 acres).

SANHEMP (*Crotalaria Juncea*)—This fibre crop was grown on 476 hectares (1,177 acres) in 1965-66, in the district. This is also essentially an irrigated crop like cotton and tahsils served by canals are noted for its cultivation. The fibre is used for making ropes, nets and rough cloth for grain bags. The crop is mostly grown as a *Kharif* crop, usually alone, in rotation with food crops, cotton and oilseeds, or as a green manure, with potatoes, rice or fruit trees. The sowing is done in June-July, and it is ready for harvesting in four to four-and-a-half months. The total production was 41 tonnes (40.4 tons) in 1965-66.

SUGARCANE (*Sacharun Officinarum L.*)—Sugarcane holds a pre-eminent position in the State as a cash crop. During the last decade (1956-57 to 1965-66), the annual area in the district under it, has risen from 3,771 hectares (9,315 acres) to 8,899 hectares (21,991 acres) and production from 82,756 tonnes (81,449 tons) to 1,22,901 tonnes (1,20,932 tons). The crop, entirely dependent upon irrigation, is, therefore, raised prominently in the tahsils served by canals.

Sugarcane requires a thorough preparation of land. Preparatory tillage goes on between 20th of December and 20th of January and soil is ready for sowing in the first fortnight of February. Planting usually starts by the last week of February and is completed well before the onset of summer heat. To maintain optimum soil moisture during all stages of its growth, 8 to 12 waterings are essential, at short intervals of 8 days. The watering frequency is reduced near the harvest time, and just before it starts, water is held off from the crop for about a month. The first hoeing and weeding is done after planting, 4 to 6 weeks later in April, when the land is made wet with irrigation. The process is repeated in June, and at the end of August after the monsoons, when inter-culturing and earthing operations are again performed. The harvesting is done between the 15th of October and 20th of March. The average yield of the crop in Ganganagar district has been estimated at 2,838 kg. per hectare.

The distribution of 8,899 hectares of land under cultivation of this crop in 1965-66, amongst the tahsils was, Ganganagar 2,196 hectares (5,427 acres), Anupgarh 1,802 hectares (4,453 acres), Padampur 947 hectares (2,341 acres), Karanpur 731 hectares (1,806 acres), Raisinghnagar 709 hectares (1,752 acres), Suratgarh 650 hectares (1,607 acres), Bhadra 576 hectares (1,422 acres), Hanumangarh 456 hectares (1,127 acres), Sangaria 262 hectares (648 acres), Tibi 225 hectares (556 acres), Sadulshahr 204 hectares (504 acres) and Nohar 141 hectares (349 acres).

OILSEEDS—Ganganagar is an important oilseed producing district of Rajasthan, and this has given rise to the establishment of a large number of oil mills. Oilseeds are also exported in large quantities to some districts of Rajasthan and other States. The important oilseeds grown are groundnut *(Arachis hypogzea)*, castor *(Ricinus communis)*, sesamum or *Til (Sesamum indicum)*, linseed *(Linum usitatissimum)*, besides rape seed and mustard, belonging to the family of *cruiferae* i.e. *Rai*, *Sarson*, *Toria* and *Taramira*. The area under oilseeds was 15,629 hectares (38,620 acres)in 1965-66. The major crops belonged to the species rape and mustard, accounting for about one-third of the total area i.e. 4,970 hectares (12,280 acres), while the remaining area was shared by other oilseeds. *Til* and groundnut are grown in *Kharif* season and are ready for harvesting by September-October, while linseed, *Taramira*, *Rai* and *Sarson* are the major oilseed crops of *Rabi* and are harvested during February (for rape crops) and March. The *Rabi* crops are mostly irrigated, and sown mixed with wheat or barley, except *taramira*, which is sown in September on *Barani* land. Almost all the tahsils grow one or the other oilseed crop. In 1965-66, the maximum area of 5,285 hectares (13,061 acres) under oilseeds was in Suratgarh tahsil. This was nearly one-third of the total area under oilseeds in the whole of the district in that year. Another one-seventh of such area (2,202 hectares or 5,440 acres) was claimed by Nohar tahsil. The other tahsils producing oilseeds, one or the other, were Anupgarh (1,752 hectares or 4,330 acres), Karanpur (787 hectares or 1,945 acres), Padampur (736 hectares or 1,918 acres), Sadulshahr (591 hectares or 1,459 acres), Ganganagar (776 hectares or 1.918 acres). Hanumangarh (840 hectares or 2,075 acres), Tibi (593 hectares or 1,465 acres), Bhadra (890 hectares or 2,200 acres) and Sangaria (328 hectares or 811 acres).

FRUITS AND VEGETABLES—The main fruits grown in the district are *Maltas*, *Mossambies*, mangoes, lemons, guava and grapes. The *Malta* crop is the pride of its orchards and fetched an income of about Rs. 45 lakhs to the district in the year 1964-65. Brinjals, ladies fingers, *Laoki* (gourd),carrot, cauliflowers and potatoes, are among the important vegetables. There are 812 orchards in the district, growing fruits and vegetables. The total area under fruits and vegetables, including the tuber crops, such as tapioca, sweet potatoes and onions, both in the *Rabi* and *Kharif* seasons in1965-66, was 4,263 hectares (10,534 acres), about 45 per cent of it being the garden area with fruit plants.

Ganganagar was covered by a special scheme for intensification of fruit production, prepared by the State Department of Agriculture, till

1965. The Government gave all sorts of incentives in the form of subsidies, loans, expert advice and other material to the private growers for raising fruit gardens. Special concession in water charges (which were four times more for orchards) was granted for watering fruit gardens. Besides, a Research Fruit Farm of 31.5 hectares (78 acres) was developed at Ganganagar and a scheme for intensification of research on citrus, date-palm and grapes was taken in hand, since 1st November, 1960. As a result of successful experiments, the Farm produced a number of new varieties of *Malta*, especially an early Blood-Red type with deep-blood coloured pulp islolated, named *Yuvraj Malta*. Besides 24 varieties of sweet orange, 23 of mandarins and 6 of grape fruits and 224 varieties of grapes were obtained from different parts of the country, for studying their growth and performance under the climatic and soil conditions of Ganganagar. There is also a Government Nursery at Ganganagar for encouraging fruit growing and production of vegetable seeds through their distribution to cultivators. The production of major fruits in the district during the last few years was as follows[1] :

(tonnes)

Fruits	1961-62	1962-63	1963-64	1964-65
Malta	10,033	10,242	10,495	10,570
Mossambi	3,135	3,202	3,279	3,302
Lemon	358	366	376	376

Tahsilwise area under fruits and vegetables during 1965-66, was as follows[2] : (Hectares)

Tahsil	Area
Ganganagar	2,240
Karanpur	324
Padampur	138
Raisinghnagar	495
Anupgarh	741
Suratgarh	98
Sadulshahr	15
Sangaria	28
Hanumangarh	96
Tibi	78
Nohar	5
Bhadra	5

1. Source : Office of the Deputy Director of Agriculture, Ganganagar.
2. Source : Board of Revenue, Rajasthan, Ajmer.

Crop Pattern

With a view to maintaining soil fertility and better utilisation of irrigation resources, groundnut has been introduced in the district. *Arhar* is also getting popular as a cash-crop. In the Bhakhra commanded area, cotton of G-1 and 320-F varieties are increasingly being grown to cover the new areas brought under perennial irrigation. In general, the cultivation of commercial crops like cotton and sugarcane is now increasingly favoured, which is due to the attractive prices these cash crops fetch. The total area under sugarcane has almost gone 2½ times and has doubled in case of cotton during the last decade (1956-57 to 1965-66). As amongst the foodcrops, the coarse crops, which held the ground earlier are being replaced by wheat, gram, etc.

Area and production of major crops during the decade 1956-57 to 1965-66 is given at Appendix I.

Agricultural Implements

The progressive outlook of the cultivators and their economic prosperity have resulted in the popularisation of improved agricultural practices and implements. With a view to encouraging their use and making them readily available, the Agriculture Department is not only distributing modern implements but is also demonstrating their use in cattle fairs and Government farms. There were 1,349 tractors in use in 1966, in Ganganagar, the largest number in any district of the State. Threshing machines are getting popular and improved iron and harrow ploughs, seed-drills, rotary chaff-cutters and sprayers and dusters are also being used extensively. These implements are manufactured and sold to the cultivators by registered fabricators in the district. Steady increase in the distribution of these implements in the district during the period 1961-66 is detailed in the following table[1]:

(Number)

Name of the implement	Distribution during				
	1961-62	1962-63	1963-64	1964-65	1965-66
Iron ploughs	1,285	1,527	2,712	2,669	2,280
Tirphalies	1,018	1,520	2,068	2,869	1,883
Seed Drills	8,332	9,016	2,141	1,067	466

1. Source: Office of the Deputy Director of Agriculture, Ganganagar.

The old types of agricultural implements, however, are still commonly and widely used by the majority of the cultivators, as it takes time to bring about a change in traditional attitudes and age-old practices.

A statement showing agricultural implements and machinery used in the district at the time of 1956, 1961 and 1966 quinquennial Livestock Censuses is given at Appendix II.

Seeds

The State Agriculture Department has undertaken a special scheme of production and distribution of improved seeds for Ganganagar district. Four Seed Multiplication Farms, each covering an area of 28·3 hectares (70 acres) and located at Padampur, Raisinghnagar, Jaitsar and Karanpur, are producing and supplying the foundation seeds of various varieties. Besides, the Department runs a Research Farm of 88·6 hectares (219 acres) and a Regional Research Station at Ganganagar, which utilise the seed Multiplication Farms as research sub-stations. Moreover, there are three similar farms run by Karanpur, Raisinghnagar and Hanumangarh Panchayat Samitis. The Central Mechanised Farm at Suratgarh also serves as a supply base for the improved varieties of seeds for different crops. For meeting the growing needs of the cultivators, the produce of these seed-farms is further multiplied by selected registered seed growers, who, in turn, supply improved seeds to the Panchayat Samitis for distribution. Local sources of supply are also being encouraged, so as to keep their prices low, which cost of transport enhances. The district has one district-level, five *Mandi*-level and 25 rural seed stores, which cater to the needs of the cultivators for improved seeds with the least inconvenience.

Improved varieties of seeds, introduced in the district, include 320-F and G-I cotton, C-281 variety of wheat for late sowing, peas 7-163, Sugarcane COL-29, COS-245 and CO-419. Seeds of hybrid maize, chillies, *Arhar* and castor are also distributed. These seeds are gradually getting popular with the cultivators.

The distribution of seeds of certain important crops, yearwise, during the Third Five Year Plan period is given in the following table[1]:

1. Source: Office of the Deputy Director of Agriculture, Ganganagar.

(quintals)

Seed	1961-62	1962-63	1963-64	1964-65	1965-66
1. Paddy	-	-	-	-	26
2. *Bajra*	4	2	-	-	-
3. *Jowar*	76	4	24	23	-
4. Maize	1	1	5	9	-
5. Wheat	3,168	1,581	1,585	9,233	8,356
6. Barley	520	682	482	582	24
7. Gram	4,266	2,740	2,595	9,865	5,746
8. Cotton 320-F	-	-	28	858	386
9. Cotton G-1	2,173	1,029	2,497	336	156
10. Sugarcane	6,135	30,855	1,759	9,784	25,001

Manures and Fertilisers

Except for the Ghaggar-bed area, where clay soil has emerged, the soil of the district, in general, is mainly deficient in nitrogenous content, the potash contents also ranging from low to medium. The soil of the Gang Canal Colony is, however, comparatively rich in potash and normal in phosphatic and nitrogenous contents. All these soils are generally deficient in organic matter and the fruit plants, consequently, suffer from a deficiency of iron, zinc, copper and boron.

The deficiency of nitrogenous contents is, generally, overcome by the application of local manures which are being used to the extent of 50 per cent in the irrigated areas. The application of local manures during the last half-a-decade is indicated by the following table[1]:

Item	Unit	1961-62	1962-63	1963-1964	1964-65	1965-66
1. Green Manuring	Hectares	2,079	1,742	2,277	—	1,078
2. Compost pits dug and filled	Number	2,094	1,980	2,581	5,761	2,787
3. Compost prepared	Tonnes	Not available		Not Available	2,408	8,74,524
4. Compost distributed	,,	1,36,059	60,035	2,14,982	2,53,613	8,74,524
5. Press Mud	,,	-	2,162	913	1,833	1,073

1. Source : Office of the Dy. Director of Agriculture, Ganganagar.

Extensive arrangements have been made for the distribution and use of fertilisers also. They were first tried on food and cash crops and the results were found to be much beyond expectation. Since then, the use of fertilisers has been continuously increasing as is evident from the following table of distribution of fertilisers:

(tonnes)

Fertiliser	1961-62	1962-63	1963-64	1964-65	1965-66
1. Nitrogenous	2,558	6,244	8,593	14,725	10,905
2. Nitro-phosphate	20	23	27	—	—
3. Super-phosphate	23	353	789	1,341	728
4. Muriate of Potash	—	8	12	3	2,706

The number of agencies, distributing fertilisers, rose from 172 in 1962-63 to 403 in 1963-64.

Crop Rotation

Under the existing conditions of irrigated farming in the district, a crop-sequence has been evolved, which is conducive to better utilisation and conservation of water and enhances soil fertility. It has helped increase crop productivity many-folds, during the last few years, by replenishing the soil with nitrogen and supplying other nutrients to crops from its various depths. The following rotational order has been found suitable on the basis of results obtained from experiments :

1. *Guar*—Wheat
2. *Bajra*—Gram
3. Sugarcane—Cotton—Fallow
4. Fodder—Gram—Cotton—Fallow—*Moong*
5. Groundnut—Sugarcane.

Crop-Diseases and Pests

The diseases may be brought about by micro-organisms like fungi, bacteria, viruses etc. or by physiological causes, such as high or low

temperature, lack or excess soil moisture and aeration, deficiency or excess of plant nutrients, and soil acidity or alkalinity. Besides popularising the use of various disease resistant varieties of crops, regular plant-protection operations were taken up in the district in 1958. The cultivators are encouraged to purchase their own sprayers and dusters for using insecticides. Control of white ants has been the main problem in the cultivation of wheat in Bhakhra commanded area and an area of about 2,023 hectares (5,000 acres) has been rendered immune by house to house distribution of insecticides. Aerial spraying is being done in the area growing cotton. Demonstrations are held to popularise the control of weeds, especially *piazi*, an obnoxious growth in wheat crop. The plant protection work is organised by 8 teams consisting of a Plant Protection Supervisor and two fieldmen each, in Padampur, Karanpur, Raisinghnagar, Mirzawala, Sadulshahr, Suratgarh, Hanumangarh and Bhadra Panchayat Samiti areas.

The Anti-Locust Organisation of the Government of India, through its intelligence and technical wings, has been doing useful work in curbing the pest-menace by patrolling the susceptible areas and taking necessary action, whenever needed.

The *Rabi* crops of wheat, barley, gram etc., in the district, mostly suffer from smuts, brown and white rust, blight, wilt and certain other soil-borne diseases, while the main *Kharif* crops of *Bajra*, *Jowar* etc. are most susceptible to mildew and root-rotting. Wheat is also affected by *Tundu*, which curls the deseased plants. Other symptoms, like inflorescence and a bright yellow liquid also appear on the leaves. No seeds are formed and grains are transformed into small hard galls. The remedy usually applied consists, besides removing the affected plants and restoring to a long crop rotation, in the discarding of floating grains in a brine solution (25 per cent salt solution). Brown-rust is treated with dusting of the plot, where seed has been sown, with finally powdered sulpher at the rate of 16.8 kg. per hectare (15 lbs. per acre), while smuts require solar treatment before sowing in case of wheat, and seed treatment with Agrosan of different strengths, depending upon requirements, for barley. Blight and wilt, affectingmostly the gram plants, are controlled by preserving the moisture and growing disease resistant varieties.

Green-ear and Downy Mildew, deforming and transforming the *Bajra* plant into loose green head, prove dangerous unless diseased plants are rogued out and destroyed by burning. Blast, which affects paddy crop, is checked by dipping the seed in Ceresan or Agrosan G N before sowing,

at the rate of 2 to 2.5 gm. per kg. Cotton diseases like Augular leaf spot or Black-arm, Root rot, wilt and *Tirak* or premature defective opening of boils, are controlled by treating the seed and dressing it with organomercurial fungicides like Agrosan or Ceresan at the rate of 1.25 gm. per kg. In the case of cotton diseases, the general safeguards undertaken are sowing of resistant varieties of seed, late-sowing, closer plantations and mixed sowing with *moth* in root-rot affected areas.

Sugarcane, affected most by yellowing, is cured by spraying of Ferrous-sulphate (containing 12.5 gm. of Citric acid per gallon) at the rate of 80–100 gallons per acre.

The most destructive of the agricultural pests in the district are white ants, hoppers, white flies, jassids and worms. White ant attacks wheat, barley, gram and cotton among the field crops as also the citrus plants. The usual treatment applied is soil treatment with Aldrin 5 per cent dust for field crops, other than cotton and Aldrin 30 E. C. for citrus plants and cotton. Hoppers are a menace to *Bajra*, paddy, wheat and barley and need D. D. T. spraying and dusting of 10 per cent B. H. C. Stem, root and top borers harm sugarcane while paddy suffers from stem borers and vegetables from fruit borers. D. D. T., W. P. and Aldrin spraying and B. H. C. dusting usually prove effective in the control of these pests. Cotton is also prone to certain other pests such as Pink-bollworm, Grey weevil and Red-Cotton bug, while sugarcane is attacked by Leaf hopper and mite also. The latter are usually controlled by Dimecron spraying and Sulphur-dusting.

Amongst the vegetables, tomatoes are attacked by Fruit-borer and brinjals or egg-plant by Jassids. The treatment applied is 16 per cent D. D. T. spraying for fruit-borers and 0.02 per cent Aldrin spraying for Jassids in brinjals.

Departmental Activities

With a view to assisting the cultivators to derive maximum advantage from the technical know how, a Deputy Director has been appointed by the State Agriculture Department and he is responsible for the implementation of the intensive agricultural development programmes in the district. He is assisted by two District Agriculture Officers and a team of specialists in the fields of plant protection, cotton, sugarcane, fruit-development and soil conservation. This is in addition to the exten-

sion staff attached to the Panchayat Samitis. Besides promoting better agricultural operations through the distribution of seeds, manures, implements etc., research work is undertaken by these experts on various aspects of crop cultivation with a view to improving their productivity and quality. The results are demonstrated to the cultivators. The department is also responsible for soil conservation which includes land levelling in the Rajasthan and Bhakhra canal areas. Besides, the establishment of regulated markets, conducting surveys of important *Mandis*, commercial grading and daily model-price reporting, under the Marketing Intelligence Scheme, are the activities undertaken by the Agriculture Marketing Section of the Department. Seedlings of shrubs, roses, trees and creepers are supplied at reasonable rates from the Government Nursery to elicit interest of the cultivators in ornamental gardening. The department has selected Ganganagar as one of the districts, for the high yielding varieties programme.

Government provides financial assistance in the form of *Taccavi* loans to the cultivators. These loans are routed through the Panchayat Samitis, and the period of a loan varies with its nature. The details of long, medium and short-term loans, sanctioned during the last three years, are as follows[1] :

(Rupees)

Type of Loans	1963-64	1964-65	1965-66
Long-term	3,06,864	5,02,967	1,70,000
Medium-term	400	10,000	15,000
Short-term	5,44,418	72,12,783	84,75,928

SURATGARH FARM—The Suratgarh Mechanised Farm, renamed as Central State Farm, Suratgarh, was set up on the 15th of August, 1956 in collaboration with the U.S.S.R. and was under the administrative control of the Union Ministry of Food and Agriculture. It is the only one of its kind in the country and the biggest in the whole of Asia.

1. Source : Office of the Development Commissioner, Rajasthan, Jaipur. The purposes of various term-loans are :
Long-term : For pumping sets, improved implements, Persion wheels, tractors, construction and deepening and repair of wells and other sources of irrigation and soil conservation.
Medium-term : For fruit development.
Short-term : For seeds, fertilisers, etc.

The Farm received machinery worth Rs. 67 lakhs as gift from the U.S.S.R. Russian technicians helped in setting up the main workshop and trained the Farm staff in the maintenance and repairs of the machines. The main type of improved implements, being used at the Farm, are moulboard plough, stubble harrow with a 40 ft. cut, offset harrow, Athens harrow, cotton and maize planters and seed-drills. A Russian Agronomist also imparted know how in the initial stages. There is a base workshop in Central Colony Suratgarh, which contains all farm machinery in operational readiness. Various jobs ranging from servicing to over-hauling are undertaken here, in addition to fabrication of some types of spare parts.

The Farm was started with the primary objective of raising wheat, gram and cotton of improved varieties, for distribution as seed to various parts of the country. An orchard of citrus and other fruits was also raised in about 11,825 hectares of land.

The following table gives yearly production of various crops at the farm during the last 6 years[1]:

(tonnes)

Crop	1960-61	1961-62	1962-63	1963-64	1964-65	1965-66
1. Paddy	506	848	788	393	71	74
2. *Jowar*	168	148	239	105	50	1
3. *Bajra*	17	69	36	12	4	9
4. Maize	31	29	54	74	19	39
5. Cotton	11	39	113	381	234	330
6. Sugarcane	2,184	4,121	10,698	12,448	3,885	1,074
7. Wheat	4,555	4,649	3,548	3,036	3,298	2,077
8. Barley	50	111	37	99	92	298
9. Gram	19	92	156	90	926	181
10. Mustard	2,004	1,633	1,730	447	1,028	81

1. Source : Office of the Director, Central State Farm, Suratgarh.

Research Institutions

A Regional Research Station for field crops and a Horticulture Research Station for fruit plants and vegetables are located at Ganganagar. Specialists in the field of Agronomy, Botany, Pathology, Entomology and Chemistry investigate, in the former, the problems faced by the cultivators in the fields. A seed testing laboratory by 1966-67 and a soil-testing laboratory by 1969-70, are likely to start working at this station. The Horticulture Research Station carries on research on important fruit plants like *Maltas*, grapes, date-palm etc. A Government nursery (on about 8 hectares) is being maintained at Ganganagar for propagation of fruit plants and production of vegetable seeds.

ANIMAL HUSBANDRY AND FISHERIES

Fodder

Area under forests and pastures being meagre, grazing facilities for animals are not adequate in Ganganagar district, though a variety of grasses are found such as, Para grass *(Brachiaria Mutica)*, Rhodes grass *(Choloris Gayana)*, *Dub (Cynoydon dactylon) Dhaman (Dichanthium annulatum)* Napier *(Penicitum perpureum)*, *Richek (Medicago Sativa)*, *Bursin (Trifolium alexandrinum)*, *Metha (Trigonella foenum)*, Sudan grass(*Sorghum Sudanesa*), Kidney bean *(Phaseolus aconitifolius)* and *Conped (Vigna Catiang)*. The dry straw of cultivated cereals like *Jowar*, *Bajra*, paddy, maize and wheat, form the most important source of cattle feed. Stems and plant residues of leguminous crops like gram and other pulses are also often fed. The digestibility of straws is improved by subjecting them to a softening treatment.

Availability of irrigation water in the district facilitates the cultivation of fodder and forage crops of *Jowar*, *Guar*, *Lusan*, *Chari Macca*, *Chari Jowar*, *Bareseen* etc. The area utilised for the cultivation of fodder crops during 1950-66 has been shown in the following table[1]:

(Hectares)

Year	Area
1950-51	6,876
1955-56	1,31,393
1960-61	2,24,524

1. Source : Collectorate, Ganganagar.

(Hectares)

Year	Area
1961-62	2,16,792
1962-63	1,94,373
1963-64	2,02,320
1964-65	3,24,162
1965-66	2,78,998

Livestock

The following table shows the livestock and poultry population of Ganganagar district as per the 1956[1], 1961[2] and 1966[3] livestock-censuses:

Livestock and Poultry	1956	1961	1966
CATTLE			
Males over 3 years :			
Breeding	886	965	1,256
Working	76,639	89,240	77,153
Others	951	933	1,261
Females over 3 years :			
In milk	71,966	87,025	95,661
Dry	31,830	47,523	48,232
Others	13,496	19,487	7,436
Young Stock (3 years and under	1,18,611	1,47,122	1,42,532
Total Cattle	3,14,379	3,92,296	3,73,531
BUFFALOES			
Males over 3 years :			
Breeding	380	408	464

1. *The Rajasthrn Quinquennial Livestock Ceusus Report*, 1956, pp. 6-12.
2. *Report on the Livestock Census of Rajasthan*, 1961,pp. 34-44.
3. *ibid.*, 1966, pp. 48 to 91,

1	2	3	4
Working	1,436	1,334	949
Others	78	426	270
Females over 3 years :			
In milk	36,877	56,723	61,821
Dry	15,948	25,299	31,472
Others	8,600	12,235	8,207
Young stock (3 years and under)	58,694	92,918	96,685
Total Buffaloes	1,22,013	1,89,343	1,99,868
Sheep	3,23,377	2,87,294	3,34,320
Goats	1,78,182	1,90,698	2,48,876
Horses and Ponies	3,475	3,199	2,749
Mules	28	124	65
Donkeys	6,882	9,357	7,399
Camels	74,518	93,123	97,613
Pigs	374	552	452
Total Livestock	10,23,228	11,65,986	12,64,873
POULTRY			
Fowls	53,510	71,008	56,769
Ducks	380	614	296
Others	154	135	15
Total Poultry	54,004	71,757	57,080

CATTLE—The cattle, which provide the principal motive power in the traditional type of farming, commonly found in most parts of the district, belong to the sturdy Haryana and Rathi breeds, the cows giving plentiful milk and the bullocks serving as strong and splendid beasts of burden. The average daily milk yield of a Haryana cow is 6-7 kg., while the bullocks are specially suited for fast ploughing and for transport. The Haryana breed, being one of the best cattle breeds of the country, have white or light grey colour, long narrow face with a flat forehead, large and massive, 11 to 24 cms. (4 to 9 inches) long stumpy horns which take a bend as they grow, generally short legs and sturdy and good proportionate bodies. A well marked bone prominence at the centre of the head, small dewlap and sheath, compact well formed udder and fine tail, with a black switch reaching about half way between the hock and the ground, are the special characteristics of this breed. The Rathi is a cross-breed of Sahiwala, Sindhi and Haryana breeds and possesses the characteristics, predominantly, of the Sahiwala breed. The important characteristics of this breed are broad forehead, small horns, fine skin, well developed dewlap, pendulous sheath, medium size and more or less drooping ears. The colour varieties are red, fawn, red with white patches to pure dominant red. The bulls are sturdy and the cows yield good milk, about 6-7 kg. per day. This breed, which is essentially a milch breed, is mainly reared by nomadic tribes.

SHEEP—Sheep found in the district, mostly belong to the Nali breed, called after the *Nali* area where the sheep-population of the district abounds. The Nali sheep has certain dominating characteristics of the Lohi breed, found in the neighbouring State of the Punjab, but has, nevertheless, certain distinguishing features. It has light brown face, simulating white from a distance, with long leafy scars and short tail. The fluff of this breed is very greasy and retains yellow stains throughout the year, unlike all other breeds where this yellow staining occurs only during the monsoon shearing, probably due to humidity in the atmosphere. An average Nali ewe weights 27 to 32 kg. (60 to 70 lbs.), while the body-weight of a ram ranges between 29 to 37 kg. (65 to 80 lbs.). This breed produces medium to coarse type of wool, the average yield varying from 1.4 to 2.7 kg. (3 to 6 lbs.) per year, in two to three shearings. The sheep population of the district is estimated at 3.34 lakhs which produces about 9 lakh kg. (20 lakh lbs.) of wool annually.

BUFFALOES—The buffaloes found in the district belong to murrah breed, which is a high milk and butterfat producer. The important characteristics of this breed are jet black colour with white-some hair on switch

of the tail, deep massive frame with a comparatively light neck and head, short and tightly curled horns, well developed udder and long tail reaching upto fetlock. The she-buffalo gives about 10 to 14 kg. of milk in a day, with an average of 7 per cent butterfat contents, while the male, though sluggish, is used as a draught animal.

CAMELS—Camels found in the district mostly belong to the Bikaneri breed. They have a single hump and are noted for their heavy load carrying capacity. Less hair on their bodies and comparatively lighter weight, facilitates quicker speed and strainless ride. The average height of a fully grown camel is 2.6 metres or 8½ feet and weight about 680.4 kg. or 1500 lbs. It can cover 40 to 45 km. per day. Besides serving as a very good beast of burden, the camels of this breed provide fair amount of wool, which is used for the manufacture of strings, while their skin is utilised in making of jars and big containers for storing *ghee* and oil. The animal also carries grains and water to remote places where alternate and quicker means of transport fail. Also found in many parts of the district are Jaisalmeri camels, who have notably active looks with small but alert eyes, and comparatively thinner and closed lips. They have small heads with fine muzzle and deep chest. They are hardy and can carry heavy loads on their well developed humps.

A mix-breed of Bikaneri and Jaisalmeri camels is also commonly met with in the district.

The horses, donkeys, goats and pigs found in the district are mostly of mix-*Desi* breeds. The poultry birds are of white leghorn and Rhode Island Red breeds. The former are known for extra-whiteness of their eggs and the latter for their heavier red-coloured bodies.

Fisheries

The district, with no major lake or tanks, has limited prospects of development of pisciculture. Only the common varieties of fish such as Rohu, Naren, Catla and Mohasir, are found in the district. They are mostly bred in the Talwara *Jhil* and a few tanks in Hanumangarh in addition to the waters of Ghaggar *Nali*, off the monsoon season. The total annual production of fish in the district during the years 1964-65 and 1965-66 was estimated at 284.78 quintals (765 maunds) and 406.46 quintals (1,089 maunds) respectively. The Fisheries Department of the Government of Rajasthan contracts out the fish-production at these sources, through annual auctions The revenue accruing to it during 1964-65 and 1965-66 was Rs. 46,420 and Rs. 4,650 respectively.

Further development of fisheries in the district is being attempted by the State Government and 500 Mirror Carps were stocked in 1961-62 in *Dhobhi* tanks in Hanumangarh tahsil. More recently a fish consignment of 1,000 fish of major carp seed was liberated in the tanks in the district. Breeding of fish in the Rajasthan Canal bund has also been taken in hand.

Sheep and wool

Though not important from the point of view of sheep husbandry, Ganganagar has a sizable sheep-population of 3,34.330 sheep according to Census of 1966 (32 per 100 persons). Sheep rearing has an important bearing on the economy of the district, particularly in its unirrigated southern parts. The district lies in the home tract of one of the most important breeds of sheep called Nali (Bikaneri sheep). This bread is in great demand in other parts of the State for stock impovement. Its wool is clipped twice a year in March–April and September-October. The average production per sheep is 2.04 kg. The wool produced in the district, though not of a fine quality, has a wide market. After being cleaned and pressed it is even exported to foreign countries, under the trade name of Bikaneri wool.

The State Sheep and Wool Department has taken up the development of sheep-breeding and improvement of stock in the district, recently (April, 1966) by opening a Sheep-Breeding and Research Station for Nali breed at Hanumangarh. Nucleus stock from the nearby areas has been selected and kept at the farm, from where the private sheep-farmers will be supplied pure bred Nali sheep rams, on subsidised rates for helping them improve the breed for better wool production. Sheep breeding and rearing among the agriculturists of the area, is being popularised through a scheme of mixed farming, to provide them with a source of meat and wool and good manure for their farms.

Under the integrated scheme, Ganganagar has been attached to Churu to form one Sheep-district It is controlled by a District Sheep and Wool Officer. There are eight Sheep and Wool Extension Centres located at Nohar, Bhadra, Hanumangarh, Sadulshahr, Anupgarh, Suratgarh, Raisinghnagar and Bijainagar, each one of them staffed with one Sheep and Wool Extension Officer and two Stock Assistants. There is also one Artificial Insemination Centre at Bijainagar where cross-breeding with exotic rams is undertaken in order to improve upon the quality and quantity of sheep. The wool produced after a bulk purchase by the State Government in the district, will be sent, through the Sheep and

Wool Extension Centres, to the Wool Grading and Marketing Centre at Bikaner. This is expected to encourage the breeders by ensuring them a fair price for their produce.

Stock-improvement

No key-village centre has been established in the district. An Artificial Insemination Centre was opened at Raisinghnagar during the First Plan period and it was the only such institution in the district till the end of 1965-66. During 1965–66, 70 cases of collection were taken up, 284 cases inseminated and 293 natural services performed at this centre, besides ten sterility operations, 15 progney diagnoses and at tending to 8 cases of follow-up.

Three *Goshalas* are working at Ganganagar, Nohar and Karanpur. Ganganagar *Goshala* was set up in 1956–57 and the other two during the Third Five Year Plan period. The annual milk produce of the three *Goshalas* at Ganganagar, Karanpur and Nohar comes to over 70 thousand litres. Besides, the *Goshalas* tend calves and sell or supply bulls for breeding and agricultural purposes. Under the Bull Distribution Scheme, bulls are being distributed through the agency of the Panchayat Samitis and also directly by the Animal Husbandry Department. 451 cow-bulls and 22 baffalo-bulls were supplied under this scheme during the last five years, upto 1965–66. The State Animal Husbandry Department and the Panchayat Samitis also provide financial and advisory assistance to private cattle breeders.

Veterinary Hospitals

Veterinary facilities were further extended in Ganganagar district in 1958, when a District Animal Husbandry Officer was posted as the head of veterinary services. Prior to that, one veterinary hospital at Bhadra, and four dispensaries at Suratgarh, Nohar, Sangaria and Anupgarh were functioning under the supervisory charge of Animal Husbandry Officer, Bikaner. In the year 1959–60, dispensaries at Suratgarh and Nohar were converted into hospitals. In the same year, two hospitals at Ganganagar and Hanumangarh and five dispensaries at Raisinghnagar Karanpur, Padampur, Bijainagar and Mohannagar run by the District Boards were transferred to the Department. Under the Scheme of Democratic Decentralisation, the Anupgarh Dispensary was transferred to the administrative control of Raisinghnagar Panchayat Samiti in 1959. In the following year, a mobile veterinary hospital was opened at Ganganagar. Thus, at the end of the Second Five Year Plan, there were five hospitals and two dispensaries

in the district. During the Third Plan period, a dispensary and a hospital were set up at Raisighnagar in 1961-62 and 1963–64 respectively. As the hospital was primarily meant for animals of the Rajasthan Armed Constabulary (now Border Security Force), it was, in due course, placed under the administrative control of the Rajasthan Armed Constabulary Battalion. During 1964–65, Bijainagar Dispensary was, converted into a hospital and new dispensaries were opened at Gogameri and Sadulshahr in July 1965 and in the Rajasthan Canal area in November of that year. In July 1965, the dispensary at Sangaria was also raised to the level of a hospital. Thus at the end of the Third Plan, nine veterinary hospitals (Suratgarh, Nohar, Bhadra, Ganganagar, Hanumangarh, Anupgarh, Padampur, Bijainagar) and five dispensaries (Raisinghnagar, Karanpur, Rawatsar, Gogameri and Sadulshahr) and two mobile dispensaries (Ganganagar and Rawatsar) were in existence in the district. In addition to these, all the nine Panchayat Samitis have veterinary staff, headed by a Veterinary Surgeon, to work in their respective areas. There are nine rural laboratories engaged in survey work, insemination, vaccination and bull-distribution, and an Artificial Insemination Centre at Raisinghnagar.

The progress of work done by these hospitals and dispensaries is shown in the following table :

(Number)

Year	Cases treated	Cases Supplied with medicine	Vaccinations performed	Castrations done
1960–61	52,419	1,652	3,315	3,877
1961–62	59,837	3,550	14,491	5,315
1962–63	62,049	4,276	11,799	4,244
1963–64	53,322	4,729	11,905	4,833
1964–65	56,337	5,231	20,049	4,090
1965–66	59,865	6,794	13,355	5,421

The achievements of the mobile dispensaries are shown below:

(Number)

Year	Cases treated on tour	Inoculations performed	Castrations performed	Outbreaks attended
1960–61	1,391	388	201	–
1961–62	3,458	1,724	418	–
1962–63	1,239	98	123	–
1963–64	1,541	2,193	184	–
1964–65	1,098	–	276	8
1965–66	1,749	1,991	247	4

Achievements of the dispensaries working under the Panchayat Samitis, during the last five years were as follows :

(Number)

Year	Livestock supplied				Cases treated	Castrations done	Vaccinations performed	Foot Bath constructed
	Cow Bulls	Rams	Baffaloes	Poultry				
1961–62	45	29	—	2,202	37,981	9,722	34,464	—
1962–63	87	15	3	1,544	29,849	6,839	45,375	13
1963–64	68	48	6	2,255	39,033	12,361	64,560	12
1964–65	101	36	2	5,597	50,382	13,044	1,02,944	14
1965–66	146	40	11	543	34,267	17,390	95,948	—

Livestock Diseases

The most common diseases, affecting animals in the district, are Haemorrhagic Septicaemia, Anthrax and, to a lesser extent, Black Quarter. Foot and Mouth and parasitic diseases, though more extensively affecting all animals, seldom prove fatal.

HAEMORRHAGIC SEPTICAEMIA (H. S.)—It is locally known as *Galgotu* and is one of the most dangerous infectious and contagious diseases, taking maximum toll of life amongst cattle, buffaloes, sheep and goats. It is caused by pasteurella bovi septic and the victim hardly lives for 24 to 48 hours. In acute cases, the course of disease is even shorter (4 to 6 hours). The symptoms, sometimes noticeable, are high temperature (104 to 105 degrees F.) and fast pulse, resulting in great restlessness and difficulty in respiration, leading to breathing through the mouth, with a peculiar sound. There may also be swelling on the neck, drooping of ears, congestion of eyes, and haemorrhagic mucooa.

ANTHRAX—It is also a very dangerous disease and has a very rapid course (10 to 36 hours). It sometimes affects cattle and buffaloes but more often sheep and goats, and is caused by spore-forming micro-organism known as *Bacillus Anthracis*. It affects the blood so as to cause its destruction and loss of function. The symptoms appear in the form of sudden rise in temperature (105° to 107° F.) with restlessness, bellowing, stamping of foot and congestion of mucous membrance. There may develop tremors in thighs or in the whole of the body and the animal may become suddenly almost immobile. In more acute cases, there may be no marked symptoms and the animal may suddenly drop down and die. After the death of the victim, there may be blood oozing out of the natural orifices. In sheep and goats, the attack of the disease is rather sudden. The animal staggers, grinds teeth, feels body twitchings and dies in a few

minutes. There is flow of blood from natural orifices here too. In more severe cases the disease lasts only for a few hours.

The control of these diseases has been attempted by the Animal Husbandry Department through inoculations and vaccinations.

The figures of seizures and deaths from various diseases during the last few years are given below[1] :

Disease	1963-64		1964-65		1965-66	
	Attacks	Deaths	Attacks	Deaths	Attacks	Deaths
Haemorrhagic Septiciemia	36	36	–	–	287	20
Anthrax	–	–	–	–	4	3
Black Quarter	–	–	–	–	10	9
Foot and Mouth	241	–	–	–	–	–

Cattle Fairs and Exhibitions

One State-level cattle-fair and exhibition is organised every year at Gogameri in Nohar tahsil. Another cattle exhibition at Rawatsar is also an annual feature. At both these exhibitions prizes are awarded to the winning stock-breeders. In addition to these State-level fairs, 37 local cattle-fairs are arranged by various Panchayat Samitis through private agencies and these fairs are a good source of revenue to the Panchayat Samitis. The names of some of the important local fairs are given at appendix III.

The Gogameri Cattle Fair has a long history, having been started in the times of the princely State. It is now arranged by the Animal Husbandry Department every year during *Bhadra pad* (August-September) and coincides with the festival of 'Gogaji, a local hero. About 40,000 cattle of the Haryana and Rathi breeds, Murrah Buffaloes, Nali sheep, *Desi* goats, horses and Bikaneri Camels are brought to the fair and 50 per cent of them change hands. The sellers are usually Rajasthanis, while the buyers come from other States like the Uttar Pradesh, the Madhya Pradesh, Haryana and the Punjab, as also from other parts of Rajasthan. Money involved in the sale transactions amounts to over a lakh of rupees. Besides cattle, earthern pots and general merchandise are also sold in the fair. A number of recreation centres are also set up for the amusement of visitors whose number ranges from 50,000 to 1,00,000 each year.

1. Source : Office of the Director of Animal Husbandry, Rajasthan, Jaipur.

The utility of this fair for the cattle improvement cannot be under-rated as it engenders a spirit of competition among the breeders to improve their stock, by offers of prizes worth about Rs. 5,000 which are distributed to the winning cattle. A per-head cess on the sale of various animals, is levied at the following rates :

Cattle	Rs. 5.00
Buffaloe	Rs. 2.50
Camel	Rs. 8.00
Horse	Rs. 6.00
Donkey	Rs. 2.50
Sheep or Goat	Rs. 0.50

The amount accruing from this cess and other income from the fair, amounted to Rs. 96,463 in 1966. The following figures give a comparative idea about various features of the Fair in 1961 and 1966 :

Year	Cattle assembled (number)	Cattle-sold (number)	Value of cattle sold (Rs.)	Government Revenue (Rs.)
1961	40,642	17,522	41,678	66,032
1966	32,938	15,281	1,39,515	96,463

FLOODS AND FAMINES

Floods

As stated before, there in no perennial or seasonal river flowing through the district, and only a part of the ancient Saraswati river now enters this district and is locally called Ghagger *Nali*. The *Nali* waters have, since 1959, been submerging large parts of land in Hanumangarh, Tibi, Anupgarh and Suratgarh tahsils, almost every year during the monsoons. Though this inundation provides a natural source of irrigation in the bed of the river, yet the damage caused by these floods has been quite heavy during the last few years. Low lying areas in the villages in these tahsils are submerged as a result of which standing crops are damaged. The floods of 1963-64 caused damage to 65 per cent of the cropped area of about 310 hectares (1,224 *bighas*) in Anupgarh tahsil. Losses of over Rs. 5.14 lakhs in Hanumangarh tahsil and Rs. 10.37 lakhs in Suratgarh tahsil were sustained in the same year. In 1964-65, the flood water crossed Indian territory and entered Pakistan border. It affected 112 villages extending over an area of 44,477 hectares (1,09,905 acres). Crops over 7,622 hectares (18,835 acres) were damaged and 1,070 houses were destroyed.

The losses were estimated at Rs. 37.33 lakhs worth of crops and Rs. 5.60 lakhs worth of houses, besides Rs. 1.54 lakhs of railway property. Four human lives were also lost. The Government took all possible measures to limit the damage done and provided gratuitous relief. The 1965-66 floods submerged the road between Hanumangarh town and Hanumangarh Junction, dislocating heavy normal traffic between the two places.

Famines

Before the opening of the Gang Canal in 1927, the area comprising this district, was often a prey to famines and droughts, especially during the 19th and early 20th centuries[1]. Between 1848 and 1899, it was afflicted by no less than seven famines. The famine of 1868-69 was particularly severe, resulting in great scarcity of food and fodder. In the absence of any systematic relief operations, people had to migrate in large numbers to neighbouring provinces of the Punjab, Sind and Malwa. The only administrative relief provided was cooked food. The famine of 1891-92 was confined to a few tahsils and though the relief measures were prompt, the death-toll of the cattle was quite heavy, being about 50 per cent.

The famine of 1896-97 was even more acute and widespread. Prices shot up very high and there was large scale emigration. Loss of human life and cattle was unprecedented. Nearly 33 per cent of the cattle were estimated to have died. The relief works consisted mainly of digging of tanks and works on Ghaggar Canal and the railway extension. Remission of Government revenues was granted in the afflicted areas and temporary advances were given to the cultivators. Gratuitous relief was also given to children, dependents and those who were not fit to work.

The famine of 1896-97 proved, unfortunately, to be only a precursor of another more severe and disastrous calamity in 1899-1900. The later year witnessed the most unexpected scarcity conditions. The rainfall was a bare 7·62 centimetres or 3 inches, which was in no way sufficient even for the only two staple food crops grown in the area. The Famine Commissioner of Rajputana remarked, "There is no record of such a calamity ever having visited" the State. The grain stores were already depleted due to the difficult conditions in the previous year. The supply of water and fodder was altogether meagre. The Royal Commission of 1878 had laid down a Famine code for the princely States, so a comprehensive

1. *Report of the Famine Operations in Bikaner State*, 1900, and *Administration Reports of Bikaner State* for various years.

programme of works and relief measures was, accordingly, drawn up under the personal supervision of Maharaja Ganga Singh. This was to be administered through a newly-created Famine Department. A large number of officers and men were deployed on relief works, such as repairs to roads and digging of tanks etc. Camels were used for transporting grains from railway stations to different relief camps. Labourers were paid in kind while their children were fed free. Poor houses were opened and medical arrangements made, at different camps. *Taccavi* loans were also given in addition to remission and suspensions granted in land revenue. In spite of all these effective measures, the losses to life and livestock was substantial. Nearly three-fourths of the entire cattle perished owing to the scarcity of fodder and drinking water. Large numbers died of starvation and disease and the entire villages emigrated, though temporarily, to the neighbouring districts of the Punjab.

The twentieth century began with the firm resolve of the then princely administration to prevent the recurrence of what had been experienced in the closing years of the preceding century. Tremendous efforts were made to provide a permanent solution to the distressing problem, by way of extending irrigation facilities and improving means of communication. The result was a net-work of railway lines and distributaries and channels from the Gang Canal. Recurrence of serious famines, consequently, could be kept away till 1938-39, when there was again a failure of monsoon for two consecutive years. But the canal area came to the rescue this time and served as a distress reliever to other parts of Bikaner State, by providing its surplus food and fodder. The situation was controlled easily with the help of improved means of communication so developed, particularly the railways. As a means of providing relief to the famine-stricken cultivating population, remission of land revenue upto 25 per cent was granted and *Taccavi* loans were liberally provided. A separate committee, under a Minister to deal with famines, was appointed. Land in the Canal area was given for temporary cultivation to the families of agriculturists coming from the affected regions. Railways allowed people free carriage to join relief works and concession in freight rates for transporting grass and fodder. The relief works consisted of construction and repairs of roads, tanks and wells and temporary schools. Construction of new channels and service roads, along the banks of the canals, was also taken up during the course of these works. Medical relief and free winter clothes, for those engaged in them, were also provided.

With the formation of Rajasthan and the intensification of development programmes, the intensity and frequency of famines has been

considerably reduced. The Bhakhra and the Rajasthan Canals have minimised the susceptibility to famines of the areas served by them. The proneness to this calamity, in the unirrigated areas, still persists because the rain gods are niggardly capricious. During the years 1963-64 and 1964-65, drought conditions were experienced in 293 villages, extending over an area of 7,749 sq. km. (2,992 sq. miles) in parts of Nohar, Bhadra and Hanumangarh tahsils. The *Kharif* crop of 1964 and the *Rabi* crop of 1964-65 were badly damaged for want of adequate rainfall and the Government had to rush to the rescue of the cultivators. Besides famine relief works, *Taccavi* loans to the tune of Rs. 3·40 lakhs and a gratuitous relief of over Rs. 6 thousand, were provided in 1963-64. Sixty relief works for deepening and construction of *Johars* (wells) were started and the Government spent Rs. 6·60 lakhs on them. Expenditure on water supply, arrangements for the famine-stricken people, in that year, cost the exchequer Rs. 76 thousand. The following year too, efforts at providing relief to the affected population, were made extensively and included starting of 96 works of construction of *Johars* and roads costing Rs. 5·53 lakhs, water supply arrangements at a cost of Rs. 72 thousand and opening of 22 fodder depots at a cost Rs. 3.30 lakhs, providing, in addition, gratuitous relief amounting to Rs. 2 thousand. Still worse conditions of scarcity were encountered in 1965-66, when over 2·24 lakhs of population living in 691 villages, covering an area of 8,003 sq. km. (3,090 sq. miles), was affected. All kinds of Government, dues from the agriculturists were suspended by the Government till the next crop, and the Public Works authorities launched an extensive road-building programme for providing work and employment to the affected people.

APPENDIX

Area and Production of Principal

Crop	1956-57		1960-61		1961-62	
	Area	Production	Area	Production	Area	Production
1. *Bajra*	1,70,248	18,391	1,38,560	10,406	1,13,289	8,507
2. *Jowar*	24,644	6,000	28,773	8,188	33,284	8,605
3. Maize	1,267	722	1,483	1,480	1,136	1,181
4. Wheat	1,80,297	2,18,253	1,32,609	1,58,437	1,37,728	1,06,049
5. Barley	56,088	51,802	49,422	55,670	57,003	16,675
6. Rice	2,612	1,668	3,876	2,025	4,351	3,595
7. Gram	3,51,424	3,39,537	4,74,972	3,90,212	5,11,948	2,21,483
8. *Kharif* Pulses	1,06,843	17,001	82,552	11,404	84,163	15,281
9. *Rabi* Pulses (excluding gram and *tur*)	235	65	243	131	286	152
10. Sesamum	401	917	9,965	1,005	3,842	90
11. Rape and Mustard	36,475	18,433	22,216	10,234	24,973	6,885
12. Linseed	130	27	32	9	28	6
13. Groundnut	4	2	17	6	25	13
14. Sugarcane	3,771	82,756	6,865	1,20,648	5,470	1,09,383
15. Chillies	106	97.5	158	74	159	74
16. Cotton[2]	71,022	76,117	68.954	59,694	76,269	89,698
17. Sanhemp	432	1,297	442	1,142	459	1,355

1. *Statistical Abstract, Rajasthan*, yearly volume, 1958 and onwards.
2. Production of Cotton in bales of 392 lbs /178 kg. each.

I

Crops in Ganganagar District[1]

(Area in Hectares, Production in Tonnes)

1962-63		1963-64		1964-65		1965-66	
Area	Production	Area	Production	Area	Production	Area	Production
1,02,369	16,063	95,520	11,670	1,61,685	48,385	1,70,646	8,416
42,282	6,777	24,749	2,580	25,385	3,471	7,544	127
1,376	1,437	1,098	997	1,156	1,265	1,199	1,037
1,45,893	1,24,437	1,22,757	56,410	1,39,842	1,06,584	88,971	58,453
49,187	19,957	33,152	3,976	41,723	20,904	23,696	8,294
4,868	4,192	3,873	4,756	3,939	3,372	6,129	3,055
5,59,748	2,39,653	4,94,388	90,320	4,72,437	1,94,339	2,97,427	73,762
79,422	16,400	67,925	10,862	93,097	35,290	99,873	4,384
279	149	230	57	246	30	169	33
5,895	601	1,475	11	3,413	234	2,416	44
34,920	11,506	24,080	1,484	21,665	6,969	4,970	746
49	12	23	6	56	13	21	3
11	6	15	8	105	94	264	84
4,800	1,92,619	4,811	1,46,500	5,517	1,68,014	8,899	1,22,901
106	14	163	55	203	63	187	56
79,247	81,260	1,04,051	1,01,447	1,04,154	97,608	1,34,602	86,611
452	1,389	438	454	521	744	476	41

APPENDIX II

Agricultural Implements and Machinery in use in Ganganagar District

(Number)

Agricultural Implements and Machinery	1956[1]	1961[2]	1966[3]
1. Ploughs			
Wooden	1,29,167	1,54,057	1,53,415
Iron	15,221	52,534	69,186
Total ploughs	1,44,388	2,06,591	2,22,601
2. Carts	15,369	19,746	21,331
3. Sugarcane Crushers	2,894	3,962	4,375
4. Oil Engines	6	31	66
5. Electric Pumps	1	1	63
6. Persian Wheels or *Rahats*	—	16	27
7. Tractors	498	1,745	1,349
8. Wheel Walking Tractors or Power Tillers	—	—	113
9. *Ghanies*	95	109	196
10. Harrow and Cultivators	—	—	5,386
11. Seed drills	—	—	5,336
12. Threshers	—	—	1,751
13. Rotary chaff cutters	—	—	18,603
14. Sprayers and dusters	—	—	409

1. *Statistical Abstract, Rajasthan*, 1958, p. 49.
2. *ibid.*, 1962, p. 67.
3. *Report on the livestock Census of Rajasthan*, 1966, pp. 90-91.

APPENDIX III

Important Local Cattle Fairs in Ganganagar District[1]

Places where held	Tahsil	Frequency (in a year)	Approximate time periods
1. Hanumangarh	Hanumangarh	6 times	3rd June, 30th August, 27th October, 25th November, 11th January, and 24th March.
2. Sangaria	Sangaria	4 times	25th June, 4th Sept. 18th Dec., & 4th Feb.,
3. Padampur	Padampur	3 times	10th July, 1st October and 19th March.
4. Karanpur	Karanpur	Twice	18th July, 9th February.
5. Chak 7 Z	Ganganagar	4 times	27th July, 16th September, 18th November & 15th February.
6. Chunawadh	Ganganagar	Twice	25th August and 18th January.
7. Kaluwala	Ganganagar	Once	1st December.
8. Sadulshahr	Sadulshahr	6 times	5th August, 26th September, 6th December, 22nd January, 27th Feb., & 6th March.
9. Raisinghnagar	Raisinghnagar	Twice	18th August and 28th December.
10. Nohar	Nohar	Twice	30th November and 23rd February.
11. Pilibangan	Suratgarh	Once	1st December.
12. Bas Beharipur	Bhadra	Twice	8th Dec., & 4th March
13. Bhadra	Bhadra	Once	2nd February.

1. Source : Office of the District Animal Husbandry Officer, Ganganagar.

CHAPTER V

INDUSTRIES

Old Time Industries

The industrialisation in the present Ganganagar district began after 1927, with the advent of famous Gang Canal, in the area. Prior to it, the industries in Ganganagar were almost non-existent, because the area was a sandy waste, devoid of developed means of transport and communication. However, some cottage industries, such as wool manufacturing, carpentry and leather work, are reported to be in existence here. With the coming in of Gang Canal, agricultural conditions were transformed and, coupled with the development of railways in the area, helped industrialisation set in. Ganganagar district is now fast coming up on the industrial map of the State and it has already captured a prominent place among the districts of Rajasthan from the stand point of number of industrial establishments in the area.

POWER

Hydro-Electric Power

Ganganagar district is being served by the hydro-electric power since the setting up of Bhakhra Nangal Hydel Division in January, 1960. The power house at Ganganagar had an original installed capacity of 1,800 K.W. and a generating capacity of 500 K.W. Electricity is no longer generated but is purchased from the Punjab and distributed through 33 K. V. Grid sub-stations which have been installed at Kesrisinghpur, Karanpur, Gajsinghpur, Raisinghnagar, Sadulshahr and Satipura. The power supply is received from Muktasar in the Punjab, 93.3 kilometres from Ganganagar town, through 66 K.V. extra-high tension lines, terminating at Ganganagar, where a Grid Sub-station has been constructed. Two 33 K.V. lines have been erected. One of them, 83.7 kilometres (52 miles) in length, goes upto Raisinghnagar, via Prithvirajpur, Kesrisinghpur, Karanpur and Gajsinghpur. The other, 119.1 kilometres (.4 miles) long line runs upto Suratgarh via Satipura and Pilibangan. The work on Rawatsar grid station line is in progress and Nohar and Bhadra tahsils will start receiving electric power on its completion.

Sufficient electricity is available to meet the industrial and domestic needs of the district. 1,49,04,322.72 Kwh. of electricity was consumed in the district, during the year 1963-64 as would be clear from the following table[1]:

Use	Consumption (in Kwh.)
1. Domestic lighting, fans, small industries and heaters	13,53,721.80
2. Commercial uses, lighting & fan	18,32,162.82
3. Industrial Power	1,09,50,509.50
4. Public Lighting	3,23,622.60
5. Irrigation and Agriculture	50,476 00
6. Other Public uses	3,93,830.00
Total	1,49,04,322.72

During 1966 the number of different types of connections given, were as follows :

Type	No. of connections
1. Domestic light	9,973
2. Commercial light	5,272
3. Small and medium (Industries) Power	407
4. Large (Industries) Power	11
5. Water Works	24
6. Agricultural	134
7. Road Lights	26
Total	15,847

1. *Statistical Outline, 1965, Ganganagar District*, District Statistical Office, Ganganagar, p. 86.

The tariff rates of power per Kwh. for different types of uses are :

S. N.	Use	Rate per unit
1.	Domestic Lights and Fans	37 paise per unit, plus 3 paise per unit electricity duty.
2.	Industrial connections-Power	First 500 units-13 paise per unit 500 to 1000 units-11 paise per unit. Above 1000 units-9 paise per unit.
3.	Agricultural purposes	First 1500 units-11 paise per unit. Above 1500 units-9 paise per unit.

The names of factories which are being supplied power are given at Appendix I.

The Ganganagar Power House, originally set up in May 1942, by the then Government of Bikaner, as a diesel-operated generating station, is kept now as a stand by. The supply and distribution of power has now been taken over by the Rajasthan State Electricity Board and an Executive Engineer has been put in the overall charge of the Ganganagar, Raisinghnagar and Hanumangarh revenue sub-divisions, constituting the power sub-division of Ganganagar. An Assistant Engineer holds immediate charge of each of these sub-divisions assisted by two Junior Engineers and other technical and non-technical staff. The Ganganagar sub-division has three Junior Engineers.

Rural Electrification

The programme of rural electrification was initiated in the district in 1960, when only 15 localities, both towns and villages, had the benefit of electric power. Appreciable progress was made in the programme of rural electrification during the Third Five Year Plan, at the end of which seven towns, sixty villages for all categories of consumers and 20 villages for tube-wells only, had been electrified. The maximum load for rural areas goes upto 4 megawatts. The names of villages, supplied power for domestic, agricultural and industrial purposes, are given at Appendix II.

MINING

The area is not rich in mineral resources. Only two minerals are known to exist so far viz., Gypsum and Saltpetre. Some brick-earth, and building stone is also found, though an extensive geological survey is yet to be undertaken to ascertain the location and estimated reserves of these minerals. Gypsum is found in Nohar, Bhadra and Suratgarh tahsils while Saltpetre has been located at Suratgarh, Rathi-Khera, Sherekhan, Bhadra, Kali, Hanumangarh and some other places in Hanumangarh, Suratgarh, Nohar and Bhadra tahsils of the district.

Gypsum is used in the manufacture of Surphuric Acid, cement, plaster of Paris, dental and accoustic plaster and hard finished plaster and in the construction of buildings, where it provides insulation from heat. It is also used in the manufacture of nitrogenous fertilisers such as Ammonium Sulphate. Gypsum excavated at Suratgarh is of medium and high grade qualities of gypsite type, typical of desert terrain. The deposits are being scientifically exploited since July 1962 and reserves are estimated at 6.096 lakh tonnes (6 lakh tons) and expected to last for about 8 to 10 years at the rate of 203.2 tonnes (200 tons) per day. The mining operations have to be suspended for a few months when Ghaggar floods the area. Two more deposits are reported to be existing at a distance of 3.2 to 6.4 kilometres (two to four miles) from Suratgarh Railway Station. Both of them are open cast mines in which the depth of the mineral varies from 76.2 centimetres to 152.4 centimetres (2½ ft. to 5 ft.). The purity of Gypsum in these deposits varies from 70 to 85 per cent. The total production from 1963 to 1965 was 23,625 tonnes (23,161.7 tons). Out of this quantity, 12,312 tonnes (12,118 tons) were supplied to a cement factory in the Punjab. The potentialities of Saltpetre excavation in Hanumangarh tahsil have increased on account of frequent floods in the bed of Ghaggar river. In 1962-63 alone, about 7,464.8 quintals (20,000 maunds) of Saltpetre was collected from the area and sent to Mathura for refining. During the year 1965, 1,620 tonnes of building stone and 1,04,522 tonnes of brick-earth, valued at Rs. 3,240 and Rs. 2,61,305 respectively, were excavated by private contractors.

INDUSTRIES AND MANUFACTURES

Large Scale Industries

Two large scale industrial units exist in the district, which are registered under the Factories Act, 1948, namely Ganganagar Sugar Mills Ltd., and Shree Sadul Textiles Ltd.

GANGANAGAR SUGAR MILLS LTD., GANGANAGAR–This is the only sugar factory in the district and is located in the industrial area at the district headquarters town of Ganganagar. It was originally started in

the year 1937, by a few businessmen of Bikaner, with a capital outlay of Rs. 3 lakhs. The installation work was held up for eight years, due to inadequacy of funds. The then Bikaner Government, however, came to its rescue and the crushing work started in 1945-46 under the aegis of a public limited concern styled as the Bikaner Industrial Corporation Ltd., with M/s Podar Bapna Ltd. as its Managing Agents. In 1947, the Bikaner Government advanced a debenture loan of Rs. 15 lakhs to the concern. The authorised capital of the company was Rs. one crore, with an issued capital of Rs. 40 lakhs and paid-up capital of Rs. 25.38 lakhs. Due to insufficient supply of sugarcane, the factory ran consistently under loss every year, till 1951-52, when the management decided to close it down and shift the plant to Bihala in Bihar. After a great deal of agitation by the cane growers, who represented their case to the Government, and after remaining idle for about a year and a half, the factory was taken over on lease for one year from 11th December, 1953 by the Rajasthan Government. This lease was later renewed for two more years. Encouraged by its satisfactory running during this period, the Government of Rajasthan purchased the Managing Agents' shares and started it as a Rajasthan Government controlled undertaking from 1st July, 1956. It was rechristened as Ganganagar Sugar Mills Ltd. in January 1957, and is now a public limited concern, with about 71.8 per cent shares held by the Government of Rajasthan. The company has a capital investment of Rs. 26.52 lakhs in the fixed and another Rs. 65.74 lakhs in the current assets. At the end of the year 1964-65 (30th June, 1965), it had outstanding loans of over Rs 32.93 lakhs, including debenture loans of Rs. 15 lakhs, taken from its bankers and the Government of Rajasthan, for the construction of labour-quarters.

The plant has a crushing capacity of over 1,016 tonnes (1,000 tons) of sugarcane, as against the original installed capacity of less than 609.62 tonnes (600 tons) per day. It is an old plant, imported from Jawa, where it was thought to have outlived its utility and was used in eastern Uttar Pradesh for some years, before being installed at Ganganagar. Between 1956-57 and 1963-64, the factory was expanded by the installation of additional machinery and construction of building etc., at a cost of about Rs. 18.22 lakhs. The spare parts and other replacements of the plant are now being manufactured in the factory workshop itself.

The factory runs all the three shifts and employs, on an average, about 1,500 workers in the crushing season and 500 workers during the off season. The various categories of workers employed by the factory

are engaged in the engineering, manufacturing and cane-carrying branches of the mills, as also in the distilleries run by the concern. Unskilled workers are employed for doing miscellaneous types of jobs.

The duration of the crushing season depends on the availability of sugarcane, the lack of which has been a constant problem due to the shortage in the area under sugarcane and a deterioration in its quality, as a result of reduced supply of irrigation waters since 1960, under the Canal Water Agreement with Pakistan. Consequently, the three seasons from 1962-63 to 1964-65 were very lean seasons for the factory.

The factory crushes about 5 lakh quintals of sugarcane annually. The sugarcane crushed during 1965-66, however, was well over 10 lakh quintals. Coimbtore-312 quality sugarcane, mostly grown in the Gang Canal Colony, is being used by the mill, which does not yield a very fine quality of sugar. Improved variety of sugarcane was tried and it resulted in the improvement of total production, as well as in the quality of sugar.

As compared to 1953, when the factory came under the State management, the total production and average percentage recovery (now about 8.20) has appreciably increased. The quantities and value of sugarcane consumed in the factory, the number of crushing days and production for various years, since 1956-57, are given in the following table :

Year	Sugarcane crushed (quintals)	Value of sugarcane crushed (Rupees)	Number of crushing days	Production of sugar (quintals)
1	2	3	4	5
1956-57	Not available	25,53,872	Not available	62,950
1960-61	9,29,196	39,38,859	119	80,475
1961-62	8,91,344	37,72,398	114	75,052
1962-63	7,31,146	28,55,155	95	63,328
1963-64	4,31,146	22,51,525	64	36,073
1964-65	4,04,712	21,40,937	61	32,167
1965-66	10,31,800	56,27,163	123	88,321

The sugar factory has five distilleries attached to it, which are situated at Ganganagar, Mandhor (Jodhpur), Ajmer, Atru (in Kota district) and Partabgarh (in Chittorgarh district). The entire quantity of molasses, more than 18 thousand quintals per year, available as a by-product,

and spirit, *gur* and *mahuwa* are utilised in these distilleries, for the manufacture of rectified spirit, used for making varieties of Indian-made foreign liquors, country liquors, syrups and vinegars etc., which find a ready market in Rajasthan and elsewhere. Rectified spirit is also purchased from other sources for the purpose. Bagasse, another by-product, available to the extent of over 1.50 lakh quintals annually, is used as a fuel and no industrial use of it is, therefore, being made. It can be utilised for the manufacture of cardboard, whenever such an industry is established in the area. The production of rectified spirit during the last few years is given in the following table :

(British Gallons)

Year	At Ganganagar distillery	At other distilleries
1961-62	2,20,124	18,403
1962-63	2,40,819	23,679
1963-64	2,36,257	1,26,387
1964-65	2,19,982	1,19,352
1965-66	1,10,920	1,11,034

The Ganganagar Sugar Mills also holds the monopoly of the supply of country-liquor throughout Rajasthan and is also on the approved list of suppliers of Rum to the Indian Army.

SHREE SADUL TEXTILES LTD., GANGANAGAR—The only large scale cotton textile factory in the district is Shree Sadul Textiles Ltd., which is situated at the headquarters town of Ganganagar. Though established in 1947, the factory went into regular operation only in May 1951. It is a public limited concern, working under the control of its managing agent, Sir J. P. Srivastava and Sons (Bikaner) Private Ltd., Ganganagar.

The factory is a composite unit and is equipped with 15,296 Plate Make spindles and 420 looms of William Dickinson & H. & T. Ltd. make, and has, at present (1966), a fixed capital investment of Rs. 67.85 lakhs in the form of land, building, machinery and equipment, besides a working capital of Rs. 80.34 lakhs. The initial fixed and working capital amounted to Rs. 0.41 lakhs and Rs. 30.04 lakhs respectively. The concern has taken loans from the Indian Financial Corporation and National Industries Development Corporation and also from some private sources. The shortage of local finance retards the expansion plans of the factory.

The normal working days in the factory come to about 310 a year, when 1,350 to 1,400 persons, on an average, are employed[1]. Out of this number, 114 persons are on the supervisory staff. The scarcity of skilled workers has been hampering the efficient working of the mill.

The factory is being run with hydro-electric power, supplied by the local power house at a concessional rate of 9 paise per unit, offered for its industrial use. Coal, imported from collieries outside Rajasthan, is also used as subsidiary means of power. Power breakdowns are frequent and create problems. The annual consumption of power, during the year 1964-65, was 53,65,028 units, which cost the concern Rs. 5.03 lakhs.

The principal items of manufacture are cotton cloth and yarn. Fents, rags and chindies are also manufactured. The average annual value of total production is over Rs. 128.89 lakhs, out of which cloth accounts for Rs. 106.92 lakhs and yarn, of reeled and cone varieties, Rs. 16.14 lakhs. The production of cloth and yarn during the period 1958-64 was as follows[2] :

Year	Cloth (lakh metres)	Yarn (lakh kilograms)
1958	87.92	12.63
1959	103.11	16.07
1960	111.97	16.54
1961	108.74	15.87
1962	121.21	18.72
1963	135.00	18.19
1964	120.81	18.65

With a view to increasing the capacity and production of yarn and cloth in the mill, 40 additional looms were installed in 1965. Dyeing, bleaching and printing of cloth has also been started.

The cotton, used by the factory for producing cloth and yarn, is mostly grown locally. As against only 1,35,449 kilograms (2,98,613 pounds) in 1951, the factory used 20,33,682 kilograms of cotton in 1965. The cloth manufactured by the factory in the initial stage, was of medium, standard and greater widths and was mostly meant for local consumption by the agriculturists. But improved varieties and finer qualities are being

1. Employment on 31st December, 1965 was 1,391 persons.
2. *Statistical Outline, Ganganagar District*, 1965 p. 66.

manufactured now and sent to other markets of Rajasthan, Uttar Pradesh and the Punjab. The annual average value of sales of cloth and yarn is over Rs. 11 lakhs.

These two big industrial units are only a point to the scope for opening of more factories in the district. The prospects have been examined in another section of this chapter dealing with industrial potential.

Small Scale Industries[1]

Industrial units, employing upto 50 persons and using power or employing 100 persons without power, come within the purview of small scale industries. The growth of these small decentralised industries depends largely on their serving as ancillary or complementary to each other. Small industries set up in the district and manufacturing a wide range of articles, intimately linked with agricultural prosperity, are of comparatively recent growth. They include processing units based on local agricultural surpluses like cotton, oil-seeds, gram and wheat etc. Besides, there are demand-oriented industries, catering mostly to the local demand and a few ancillary units, acting as subsidiaries to bigger factories. A majority of these units are located at the district headquarters town, due to the availability of facilities of transport and communication, power and marketing. Other centres, which have attracted these industries, are mostly tahsil headquarters and other important *mandis*, where the produce from the neighbouring area is collected. 218 industrial units were registered by 1967[2]. The following category-wise list shows the number of these units :

Industry	No. of units
Cotton Ginning & Baling	58
Wool Baling & Pressing	6
Others (Wool Cleaning)	33
Flour Mills	22
Rice Mills	2
Dal Mills	7
Sugar (Manufacturing)	4
Manufacture of Edible oils (other than Hydrogenated oils)	5

1. The Description of this and the next section on cottage industries is mainly based on *Small Industry Area Survey Report*, issued by Central Small Industries Organisation, Ministry of Industry, Government of India, June 1965.
2. *List of Registered Working Factories for the year 1967*, issued by the office of the Chief Inspector of Factories & Boilers, Rajasthan, Jaipur.

Industry	No. of units
Cotton Mills	1
Saw Mills	46
Letter Press & Lithographic printing and Book Binding	22
Others (Rajasthan Canal Project Central Workshop)	1
Agriculture Implements	2
General (Steel Industry)	1
Repairs of Motor Vehicles (Engineering Workshops)	5
Manufacturing of Professional and Scientific Instruments	1
Electric Light & Power (State Electricity Board Power House)	1
Water Supply (Water Works)	1
Total	218

A description of some of the important small scale industries, under various sub-groups, is given below. This includes such industrial concerns which are not required to register themselves under the Factories Act.

COTTON GINNING, BALING AND PRESSING—This the oldest and the most important small scale industry of the district, which sprang up as a natural sequence of enormous increase in cotton production in the area. This industry has the advantage of having the most up-to-date equipment, like single and double roller gins, and optimum economic size and is, therefore, working quite efficiently. 60 Ginning and Baling factories and 14 Cotton Pressing factories were running in the district in 1962-63. The total capital investment in the machinery and equipment of both types of factories was estimated at Rs. 80 lakhs. The plants had a total installed capacity of producing goods worth more than Rs. 6.50 crores annually, the actual production in any year, of course, never reaching the figure above Rs. 5.50 crores. The industry provided employment to more than 4,000 workers daily during the busy season. Some of the flour and *Dal* mills also engaged in ginning and carding, during the cotton season, providing work to hundreds of men and women on daily-wage system. The principal raw material of the industry is the indigenous cotton produced in the district.

Cotton ginning factories were mostly located at Ganganagar, Raisinghnagar, Padampur, Sadulshahr, Sangaria, Hanumangarh, Pilibangan, Suratgarh, Gajsinghpur, Karanpur, Bijainagar, Anupgarh, Nohar and Bhadra, while cotton-pressing units were concentrated in Ganganagar, Padampur, Raisinghnagar, Bijainagar, Sadulshahr and Karanpur.

The 14 units, engaged in cotton pressing work, had altogether invested about Rs. 30 lakhs in machines and equipment and their production capacity, in terms of value of goods on 1st of April, 1963, was recorded as Rs. 3 crores. On an average, 175 persons worked in these factories, producing goods worth over Rs. 2.5 crores.

OIL, DAL AND FLOUR MILLS—Being predominantly an agricultural area, Ganganagar district produces, among other things, large quantities of gram and oilseeds such as *til* rape seed, mustard and linseed etc. This has given rise to almost a spontaneous growth of a number of small scale oil mills in the area. Moreover, nearly every flour mill or *dal* mill has installed oil expellers and *Kolhus* as a subsidiary industry. The oil produced by these mills is mostly exported outside the district.

Huge stocks of gram, produced in the district, are brought to various *mandis* of the district. This has led to the establishment of *dal* manufacturing plants all over the area. These units produce both polished and unpolished *dal*, but the industry is not of a perennial nature, as the manufacturing process is regulated by the demand for the commodity, which is not constantly regular. It is, however, said to be a paying business and is run with a small outlay. *Dal* is also exported to other parts of India. The Union Ministry of Food and Agriculture is also one of its customers, placing orders for meeting the demand of the defence forces. A number of flour mills, grounding flour for household use, are working at the district headquarters and other towns and villages. Electric power is used by only a few of them and mostly at Ganganagar, while others are run by oil engines.

55 units were working in these fields in 1962-63, with a total capital outlay of Rs. 35 lakhs in machines and equipment. As against an installed capacity of 15,240 tonnes (15,000 tons) of oil, the production came to only 4,064 tonnes (4,000 tons) in that year. The units were mostly concentrated at Ganganagar, Hanumangarh, Suratgarh, Padampur, Raisinghnagar, Gajsinghpur, Karanpur, Anupgarh, Sadulshahr, Nohar and Bhadra.

MANUFACTURE OF SOAP—Manufacture of washing soap is one of the important small scale industries of the district. There were 21 units making such soap, out of which 15 were working at Ganganagar, two at Hanumangarh and one each at Raisinghnagar and Nohar. All these units

were proprietary or partnership concerns, and had a total investment of over Rs. 2·75 lakhs(1962-63)which was made up of Rs. 75 thousand as fixed and the rest in the form of circulating capital assests. The units produced washing soap in bars, cakes and chips, with the help of equipment like pans, frames and stamping and cutting machines.

The raw materials like caustic soda, coconut oil and ground-nut oil were imported by almost all the units, from places outside Rajasthan, like Bombay, Delhi, etc. and it resulted in comparatively higher cost of production. The units employed about 75 workers, mostly unskilled. The average daily wage paid to a worker was Rs. 3 to Rs. 4.

The installed capacity of these units was about 2,612 quintals (7,000 maunds) of soap, but the actual production in any year came to about 2,224 quintals (6,000 maunds), valued at Rs. 1.80 lakhs, which was readily sold in the local markets. With the rise in the standard of living of the inhabitants, the demand for soap is gradually going up and there is scope for the industry not only for working upto full capacity but even for its expansion, in spite of stiff competition from other well established standard trade-marks of soap.

WOODEN FURNITURE—This industry is a specimen of a pattern in which demand dictates its operation. It caters to the needs of offices, educational and other public institutions and households. The demand for various items of wooden furniture has been steadily going up, due to increase in the number of these institutions, general economic development and rise in the standard of living of the people of the area.

Eight organised small scale units in Ganganagar were engaged in the manufacture of wooden furniture, mostly chairs, tables, sofa-sets, dressing tables and school and office furniture. With a total fixed investment of about Rs. 50,000 and employing 22 workers, the units had a capacity of making goods worth Rs. 3 lakhs, though their actual annual production till 1962–63, did not exceed Rs. 2.5 lakhs.

The main raw material, used by this industry, is various types of wood, viz., teak, *Sal*, *ghir* and *Aam* (mango), which is obtained mostly from Madhya Pradesh, Uttar Pradesh and Jammu and Kashmir.

The Industry has substantial scope for expansion in view of ever increasing local demand, particularly for fancy items in wooden furniture and for export to neighbouring areas, within and outside the State.

AGRICULTURAL IMPLEMENTS—Due to readiness of the cultivators of the district in adopting new and improved types of implements, a few organised small scale units and a large number of cottage units, manufacturing various types of agricultural implements, have been set up. Cottage units mostly make wooden and iron ploughs, spades, paddy hoes, seed drills etc., while the small scale units, including a co-operative society, are engaged in the manufacture of horrow-type tractor blades, *taslas* etc. The total production of all types of these implements, including those produced by all the five small scale units, was to the tune of Rs. 2.5 lakhs in 1962-63, though the installed capacity was for manufacture of goods worth Rs. 3 lakhs. Most of this production was locally consumed. About 41 persons were employed in these units, located mostly at Ganganagar, Hanumangarh, Raisinghnagar and Karanpur.

As the need for replacement of obsolete equipment and parts grows and new cultivable waste land is reclaimed, this industry is likely to expand and there exists a good scope for the establishment of a few more small scale units.

SODIUM SILICATE—Only one small scale unit was engaged in the manufacture of Sodium-Silicate in the district. It started production in February, 1963 and capital investment in the form of fixed and working assests in 1963-64, was about Rs. 85,000. The unit had an installed capacity of producing over 13,437 quintals (36,000 maunds) of Sodium-Silicate, valued at Rs. 2·88 lakhs but actual production between February, 1963 and November, 1963 was 3,732 quintals (10,000 maunds), worth about Rs. 80,000.

The unit consumed on an average, 3,723 quintals (10,000 maunds) Soda-Ash, 14·93 quintals (40 maunds). Bleaching Powder and 112 quintals (300 maunds) of Nitrate (Chilian) annually. The shortage of raw materials and paucity of funds were the main bottlenecks hindering the optimum use of its installed capacity.

Due to an increasing demand for Sodium-Silicate in the manufacture of washing soap, within and outside the district, for its use as an adhesive material for paper boards and corrugated containers and also for plywood, wall-board and flooring and metal foils, the product manufactured by the unit finds a ready sale.

WIRE NETTING AND WIRE NAILS—There were two units, one manufacturing wire netting and the other wire nails. The wire netting manufacturing unit was started in 1959 and was working at Ganganagar, while the wire nails factory commenced production in January, 1962 and was situated at Sangaria. The capital outlay of the two concerns was Rs. 34,000 and Rs. 90,000 respectively and their total installed capacity, 18,000 rolls of wire netting worth above Rs. 1 lakh and 304·8 tonnes (300 tons) of wire nails worth about Rs. 3·9 lakh per annum. During 1962–63, the production of wire netting was 225 rolls, worth Rs. 13,500 and of wire nails, 30·48 tonnes (30 tons), worth Rs. 35,000, which was abnormally low due to various difficulties, mainly the lack of raw material.

No difficulty was faced by these units, in the sale of their products as the demand for wire-netting and wire nails was much in excess of their production.

LUBRICATING EQUIPMENT—Only one unit, located at Ganganagar, was engaged in the manufacture of lubricating equipment, such as hard grease guns, hard grease nipples, soft grease guns and soft grease nipples, mainly used by the railways. It was the only unit of its kind in Rajasthan and was started as a repair and servicing workshop in 1957. The manufacture of the above articles was started in March 1963. The total capital investment of the concern amounted to Rs.31,000 including Rs. 16,000 worth of plant and machinery, with an annual installed capacity of 700 pieces of hard grease guns, 1,200 pieces of soft grease guns, 18,000 pieces of hard grease nipples and 36,000 pieces of soft grease nipples. The unit provided employment to 6 workers, four skilled and two unskilled. The articles manufactured were mostly against orders and specifications and therefore, there was no marketing difficulty.

The raw materials used were carbon steel rods, gun metal, steel pipes and mild steel rods, purchased by the unit in the open market. The main difficulties experienced were inadequate finances and non-availability of skilled workers locally.

BARBED-WIRE—The manufacture of barbed-wire in the district was being undertaken, since August 1960, by one unit at Ganganagar. Its total investment was about Rs. 1 lakh, of which Rs. 40 thousand were on plant and equipment and the rest constituted working capital. Three automatic machines had been installed, which had a capacity to manufacture 914.4 tonnes (900 tons) of barbed wire, worth about Rs. 9 lakhs annually. The product was mainly sold in Rajasthan and some adjoining towns of Punjab.

Due to acute shortage of raw material, the optimum utilisation of the plant was found difficult.

FOUNDRIES—Three foundries were working in the district, all of which were located at Ganganagar. Only one of them worked regularly and the other two in fits and starts, due to various difficulties connected mainly with the availability of raw material, finances etc.

The items manufactured were mainly metric weights. Besides, job work for oil mills, ginning machines and for agricultural implements etc. was also undertaken. The total investment in the three units was about Rs. 70,000 and their capacity of producing goods was worth Rs. 3.5 lakhs. The production in 1962-63 was valued at Rs 1.5 lakhs, out of which the first unit, working regularly, accounted for Rs. 1 lakh worth of metric sets, numbering 2,000. This unit also carried out the work of casting of parts, normally against orders.

The main raw materials required are cast iron scrap, pig iron, hard coke, limestone, copper and zinc. The difficulties in the procurement of these raw materials, combined with those connected with marketing of finished products had led the concerns to concentrate on the job-work for ginning machines, tractors, jeeps and agricultural implements in use in the district, for which there is a great demand.

LIGHT ENGINEERING, REPAIRING AND SERVICING WORKSHOPS—50 repair and servicing workshops were doing repair and job work for automatic tractors, oil and cotton ginning mill parts, sizing of axles of jeeps, trucks, trollies etc. in 1962-63 These units were mostly concentrated at Ganganagar and Hanumangarh and were equipped with lathes, drilling, shaping and grinding machines, welding sets, hand-tools etc. The raw materials used were B.P. Sheets, M.S. Rods, M.S. Plates, M.S. Angles, M.S. Square bars etc. About 250 workers were employed in these workshops.

PRINTING PRESSES—There were 22 printing presses in the district in 1967, 16 at Ganganagar and one each at Hanumangarh, Nohar, Bhadra, Sangaria and two at Raisinghnagar, catering mostly to local requirements. They employed 64 persons a day, including unskilled and skilled proof readers, compositors, machine-operators and book-binders. Their mechanical equipment consists of printing machines, treadles, hand presses, cutting, stitching and perforating machines. A few of these units are run by electricity, while others are hand-operated. The raw materials used are paper, ink, type metal, stationery and binding material. Paper is the largest single item, which is locally purchased or imported from outside Rajasthan.

OTHERS—Other small scale industrial units included one Fruit Preservation unit, located at Ganganagar, one thread-ball manufacturing

conecern, employing two workers and working with Rs. 14,000 as capital investment and an installed capacity for manufacturing over Rs. 90,000 worth of goods annually. Four units engaged in manufacturing iron chains (cow and dog chains) and iron hinges were situated at Ganganagar and Sangaria. 15 persons were employed in these units with a capital investment of Rs. 20,000 and an installed capacity for manufacturing goods worth Rs. one lakh annually (1962-63).

One unit manufacturing stainless steel utensils at Raisinghnagar employed 5 persons and had Rs. 36,000 as capital investment. Though the installed capacity was for manufacturing over Rs. 1 lakh worth of utensils, the actual production in 1962-63 was Rs. 8,000 only, primarily due to the shortage of raw material. One unit producing readymade garments and another, plastic injection moulded items, were also working at Ganganagar.

CARPET AND NIWAR INDUSTRY—Individual families and also jails, manufactured carpets and *Niwar*, providing employment to a number of persons. A small scale factory had been set up in the district jail at Ganganagar, where durries and *niwar* were produced, providing gainful employment and a source of income to its inmates. Goods worth Rs. 12,546 were produced at the factory during 1965-66.

Industrial Co-operative Societies

There were 81 co-operative societies working in the field of industrial production on 30th of June, 1965. One of them was a Cotton Ginning Factory, one Sugar Factory, 14 Weavers' Societies and 65 other industrial societies engaged mostly in leather-tanning and manufacture of leather-goods. They had in all, 3,211 persons as members and Rs. 3,38,915 as share capital and Rs. 3,83,871 as working capital. The most prominent amongst them was a sugar factory[1] holding over 90 per cent of the co-operative capital and half of the co-operative membership in the field of industries. The industrial co-operatives are less popular as compared to agricultural co-operatives, in the district, mainly on account of the greater inclination of the people towards agriculture than industries. The working of the few industrial co-operatives, that exist, has, however, been more satisfactory than that of agricultural co-operatives.

1. It was lying defunct in 1965-66, due to non-receipt of manufacturing licence.

Cottage Industries

SHEET METAL GOODS—Approximately 30 units were engaged in the manufacture of sheet metal goods like trunks, drums for storing foodgrains, sewing machine covers and buckets etc. (1962-63). Nearly 20 units were exclusively engaged in the manufacturing of trunks and the remaining 10 units, composite ones, were making trunks, buckets and other allied items. These units provided employment to about 100 persons daily and produced goods worth about Rs. 3.5 lakhs during 1962-63. Their total capital investment was estimated at about Rs. 20,000. The main raw material used was B.P. and G.P. sheets of 22 and 26 gauges. The difficulty in procuring these items was coming in the way of their expansion, inspite of the increasing local demand.

CEMENT PRODUCTS—There were ten units in Ganganagar, manufacturing cement products like *Jalies*, cement *Gumlas* (flower pots), water tanks, chips slabs and cement statues of Hindu deities. These units had an estimated total investment of Rs. 35,000 of which Rs. 25,000 accounted for fixed capital assets and they engaged about 23 persons in all (1962-63). The products were mostly made against orders and being bulky and involving high cost of transport, had a limited market.

The main raw material required for the industry is cement, the shortage of which was hindering its expansion. With mounting tempo of construction activities, the demand for these products has, on the other hand, been fast increasing.

DESI SHOE MAKING—This is an important cottage industry of the area, carried on from father to son. It is mostly concentrated in Ganganagar and Hanumangarh tahsils of the district, though a few scattered units can be found in other parts also. 2 to 5 persons, usually members of the same family, are engaged in each unit. The tools employed for the manufacture of *Desi* shoes are usually crude and outdated. Some units, however, use hand machines. Fixed capital investment per unit ranges between Rs. 100 and Rs. 150, excluding the cost of sewing machines. Another Rs. 200 to Rs. 500 are invested as working capital. This widely dispersed industry of the area, provides employment to the largest number of persons as compared to any other single craft. About 2,000 persons are engaged in the manufacture of about 4.5 lakh pairs of *Desi* shoes valued at Rs. 22.5 lakh per year.

Ganganagar is an important marketing centre for *Desi* shoes. About 60 per cent of the total production is locally consumed and the

remaining 40 per cent is sent to the neighbouring areas. The main difficulty experienced by these units is the inadequacy of finances.

AGRICULTURAL IMPLEMENTS—In addition to certain small scale units manufacturing agricultural implements, a few households are also engaged in the line. These units are manufacturing mostly wooden and iron ploughs, spades, paddy hoes, seed drills etc. and account for nearly half of the total production of these items.

POTTERY—Though small in nature, the importance of this industry lies in the universal demand for its products. It is carried on in a traditional manner by a specific class of society, known as *Kumhars*. There is no hired labour and men and women of the family jointly do the whole job. The equipment of a potter is very simple and consists of nothing but his rotating wheel. The raw material is suitable quality of earth, which is processed and soaked for some time, before it is actually used for manufacturing earthen wares, thereafter heated and baked under fuel fire. The main articles made are water-pots called *Ghara*, *Matki*, *Surahi*, *Lotri* etc. and *Deepaks*, *Handis* and toys etc. The earthen vessels, used for cooling drinking water, are in demand throughout the year though more so during the summer season. The demand for toys, *Deepaks* (earthen lamps) and flower-pots etc. is occasional, such as at the time of festivals like Diwali etc. Generally the products are made to meet the local demand, though earthen wares manufactured at Nohar enjoy wider market, on account of their artistic design, durability and utility.

OIL GHANIS—This industry provides a source of livelihood to a specific class of people known as *Telis*. The equipment for the industry consists of a *ghani* set and one or two bullocks. Oil produced by these *ghanis* is rated as of a purer quality and is, therefore, preferred to the mill product. Oil is extracted from *til*, rape and mustared seeds and manifold increase in their production, has led to the multiplication of the number of *ghanis*. The refuse, known as *khal*, is used as a cattle feed.

SMITHY—Black-smithy is also pursued by a specific section known as *Lohars* and *Gadia-Lohars*. Almost every village has one or more families of black-smiths, while *Gadia-Lohars* keep on moving carrying their tools, hearth and home, usually on special type of bullock-carts. The black-smiths manufacture buckets and utensils like *chalnas*, *tawas*, *kadai*, besides doing repair work. The raw materials used are iron sheets with the gauge varying from 18 to 26 millimetres, round bars of 18 to 25 millimetres (3/4 inch to 1 inch) width and flats of 6 to 50 millimetres (¼ to 2 inchs) thickness. The tools and other equipment in most of the

cases, are as old and primitive as the industry itself and consist of hammers and an anvil, a wind-pipe furnace and cutters. The raw material is purchased locally or is made available by the customers themselves.

Gold and silver smithy is carried on as a hereditary profession by people known as *Sunars*. The gold-smiths are found in all towns and in most of the bigger villages. A few shops of ready-made wares and ornaments have come up recently in bigger towns and they meet only a negligible portion of the total demand. People still prefer to get their ornaments made on order from indigenous artisans, who also, sometimes, keep a few cheap goods ready for sale.

The artisan usually works in his own house or hires a small shop and is assisted in his work by the members of his family or household. The hereditary nature of the profession helps produce expert artisans who start learning the tricks of the trade at a very young age. The equipments of these artisans consist of anvils, hammers, tongs, iron pincers, nippers, pots, crucibles etc. The work is carried on from early hours of the morning till sunset. Being directly related to demand at specific periods of time, the industry does not provide uniform employment throughout the year. There is heavy rush during the marriage season when the artisan has to work overtime. The repair work is steady throughout the year. The demand for the services of these artisans has been steadily diminishing due to spread of education, statutory restrictions on the manufacture of pure gold ornaments though now relaxed, and mounting prices of gold and silver as also the general economic stringency due to inflationary spiral.

Other main cottage industries in the district are sheep rearing and wool weaving, soap manufacturing, bakeries, handloom industry etc.

Industrial Potential

The industrial development of an area depends on a number of internal and external economies, such as availability, at competitive prices, of raw materials and nearness to markets and the infra-structural facilities, like cheap power, water, skilled labour, good communications and entrepreneurial ability. Tax-concessions and supply of land, free or at reduced rates, for setting up industries in a particular area, act as further incentives. The economy of Ganganagar district, being primarily based on agriculture, has vast potential for the development of industries based on the farm produce like oil-seeds, cotton, gram and sugarcane. There is, of course,

little prospect for forest or mineral based industries, for want of forests and mines in the area. Gypsum could, however, be used in production of chemical fertilisers in the Canal Zone. The recent agricultural prosperity has helped build a rich capital base and has added to the qualities of hard-work and enterprise in the local inhabitants. This bids well for the industrial development of the area. The shortage of power supply, which earlier was the main hurdle to the industrial growth, has been amply removed by the Bhakhra Nangal grid. The completion of work at Rawatsar electric grid station is further going to help the establishment of industries. Though some of the *mandis* and tahsils of the district are still not well interlinked by road but the railways are serving the area well, with about 50 railway stations and a total rail track of approximately 525 kilometres. Means of communication in the district are expanding fast. New post and telegraph offices have been opened and better telephonic facilities have been provided to meet the growing needs of the industrial development.

The availability of adequate finance at cheap rates of interest is one of the pre-requisites of industrial growth of an area. Loans are provided to small-scale industrial units by the Directorate of Industries and Supplies, Rajasthan, under the provisions of the State Aid to Industries Act, as also by Scheduled Banks, Co-operative Banks and the Rajasthan Financial Corporation. The credit facilities made available by these institutions are, sometimes, not fully utilised due to the excessive formalities to be observed in processing applications and, the resultant delays People are also more inclined towards agriculture rather than towards industries and fight shy of taking loans for this purpose. In numerous cases, therefore, industries suffer due to paucity of funds and their growth is consequently retarded.

Small Scale Industries Organisation of the Union Ministry of Industrial Development, Internal Trade and Company Affairs, undertook a survey of small scale industries in Ganganagar district, in 1963-64. The survey was meant primarily to assess the future prospects for resource based and demand-oriented industries. It also undertook a detailed study of the existing units to visualise their scope for further expansion. The Report on the Industrial Development Potentialities made important recommendations about the extension of communication facilities, liberal finance and assistance in matters of availability of raw materials and these recommendations would go a long way in helping the growth and development of small scale industries in the district. It also revealed a vast potential for development of certain resource-based industries like Saltpetre Refinery, bone-crushing, surgical cotton, chalk crayons, plaster boards, sweet imle mortar and straw boards. The demand-oriented industries, including

mixed fertilisers, chrome leather, parts for oil-mills and ginning factories, wood seasoning, wood casing and capings, chaff-cutting machines and blades, card board boxes and paints and varnishes have also a bright future. The findings of the survey also indicated adequate scope for the establishment of a few more large scale units, for which raw materials were available. They included two textile mills, one fertiliser factory, a sugar mill, a rolling mill and an oil-from-cotton-seeds factory. It also highlighted the prospects of growth of subsidiary industries, like paper and alcohol as off-shoots of sugar industry, and synthetic products as off-shoots of cotton-based industries. Of the existing small scale industries, which have no scope for further expansion, the survey listed cotton ginning and pressing, oil, *dal* and flour mills, tyre retreading, brick kilns, carpentry, blacksmithy, tanning, foundaries, lubricating equipments, rubber-*chappals*, cycle pedal rubber parts, iron chains, cotton thread balls, plastic injection moulded goods, *desi* shoe making and western type shoe making. Other category having good scope for expansion included soap, wooden furniture, sodium-silicate, agricultural implements, fruit preservation, ready-made garments, sheet-metal goods, cement products and light engineering and servicing work-shops.

The development of industries in the district, during the period of the three Plans, has been fairly satisfactory. Agro-industries such as cotton ginning and pressing, *dal* and oil mills, have accounted for most of the new concerns. Certain new types of industries such as fruit preservation, cold storage, plastic goods spare parts and foundries etc., are also making good headway.

Industrial Estate

An industrial estate was set up at Ganganagar in the year 1962, at a cost of Rs. 9.20 lakhs. It is located near the Railway Station on Ganganagar-Abhore Road. It has 44 sheds of A and C types having the facilities of a bank, a post office, a dispensary, a canteen, a park and godown-shops, attached to it. Twelve A type sheds cover an area of 237 sq. metres (2,550 sq. ft) and the remaining 32 C type sheds extend over 113 sq. metres (1,220 sq. ft.). In order to give impetus to establishing new and shifting of old units to this site, the sheds were given on subsidised rates of rent during the first three years. The monthly rentals for A and C class sheds are Rs. 156 and Rs. 102 respectively. The tempo at which the sheds are being occupied is, unfortunately, slow and has belied expectations. 6 A class and 18 C class sheds had been allotted upto the end of 1965-66 and only sixteen industrial units were working in them. They included industries like manufacture of aerated water, rubber products,

soaps, baskets, pipes, barbed wire etc. One of the concerns had established a cold storage for food preservation. The reluctance on the part of industrialists to shift to the Industrial Estate was mainly due to the non-availability of water and power during 1962-63 and even thereafter in that area.

Since August 1963, four A type sheds have been allotted to the Industrial Training Institute, and one A type and two C type to the Warehousing Corporation and the Agriculture Department, respectively for storage purposes.

Industrial Training

To overcome the shortage of skilled workmen, which had been one of the main bottlenecks in the development of industries in the area, an Industrial Training Institute was established at Ganganagar in August 1963. The Institute is run by the Directorate of Technical Education, Rajasthan, and trains 16 persons per term in each of the four trades viz., fitting, pattern-making, moulding and electrician courses. The period of instructions extends to two years, including six-months of workshop-training and the staff consists of three instructors only. A monthly stipend of Rs. 25 is granted to one-third of the total number of trainees.

Training centres have also been opened at various Panchayat Samiti headquarters to provide skilled training in various trades.

State Assistance

Prior to the merger of the princely State of Bikaner in Rajasthan, state-assistance to small scale industries was tardy. A few casual and indirect steps to encourage ancillary industries were sometimes taken to bolster up such units in which the State Government was interested. One such step was the abolition of custom duty on cotton in 1928-29, which was done to encourage the supply of cotton from outside to ginning factories springing up in the Gang Canal Area. The Marketing Department of the State Government of Bikaner acted as a medium for the supply of wool and woollen yarn to certain cottage industries, as a part of Rural Reconstruction Plan, prepared in 1942–43. In addition, financial stringency felt by small units was relieved by loans advanced by the State Savings Bank, and later by its successor, the Bank of Bikaner. But, in substance, all this did not amount to much concerted action on the part of the State for the industrial development of the area. Since Independence, however, the Government have been paying special attention to the promotion of industries in this area.

Prior to their actual start, all small-scale industries are required to register themselves with either the Director of Industries and Supplies at Jaipur or with the Regional Deputy Director and District Industries Officer at the district headquarters. The Directorate at Jaipur approves schemes for the setting up of these industries. Thereafter, controlled raw materials like iron, steel, coal, copper, zinc, etc. are allotted to the units. Rajasthan Small Scale Industries Corporation, a public body, procures and distributes through its depots, raw materials required by various small industries. Common-Facility Centres at Hanumangarh and Raisinghnagar, have been rendering service to artisans since the beginning of the Third Five Year Plan.

FINANCIAL HELP—Under the provisions of State Aid to Industries Act, 1961, small-scale industries are advanced loans for the purchase of raw material and machinery, building of godowns etc. Loans to the units run on co-operative basis are disbursed through the Co-operative Department. Loans advanced to industrial units by the Industries Department during the last decade, 1955-56 to 1965-66, are given in the following table[1] :

Year	Amount disbursed Rs.	No. of Recipients		
		Societies	Individuals	Total
1955-56	12,500	2	–	2
1956-57	71,000	3	5	8
1957-58	75,000	2	9	11
1958-59	67,000	2	16	18
1959-60	1,02,000	1	14	15
1960-61	35,000	–	15	15
1961-62	35,000	2	13	15
1962-63	75,000	–	7	7
1963-64	20,000	2	6	6
1964-65	34,500	–	5	5
1965-66	3,000	–	1	1
Total	5,30,000	12	91	103

Besides loans, subsidy is given to small scale units, on power upto 20 H.P., in order to make its use cheaper.

Two loans amounting to Rs. 1.32 lakhs have been disbursed by Rajasthan Financial Corporation to two cotton ginning and pressing factories.

1. Source : Office of the District Industries Officer, Ganganagar.

The District Industries Officer plays an important role in the expansion and development of industries and in the expeditious implementation of the State Plan for industries in the district, by extending timely assistance and encouragement.

TRADE UNIONS

Trade Unions are permanent organisations of workers, formed with the object of safeguarding and advancing their economic interests by strengthening their collective bargaining power. These unions also look after their individual and social welfare and assist them in realising their claims. Trade Unions, in most cases in the district, have not come upto these expectations and become usually active only when relations between workers and employers are strained.

Ganganagar had, in all, 7,369 industrial workers in the 218 registered factories in the year 1967. Names, along with some more details of these factories, are available at Appendix III. Particulars of the 16 Trade Unions (other than for transport workers), in the district, are given below :

S.No.	Name	Date of formation	Affiliation	Membership	
				Initial	Present[1]
1	2	3	4	5	6
1.	Shri Sadul Taxtiles Labour Union, Ganganagar	25.6.54	AITUC[2]	670	900*
2.	Rajasthan Nahar Mazdoor Sangh, Hanumangarh Town	11.8.62	–	100	Not available
3.	Sugar Mills Rashtriya Mazdoor Congress, Ganganagar	26.2.56	INTUC[3]	350	390
4.	Rajasthan Nahar Rashtriya Mazdoor Union, Suratgarh	20.11.62	INTUC	200	439

1. Relate to the end of 1965-66, except where marked with an asterisk denoting the figures as relating to 1964-65.
2. All India Trade Union Congress.
3. Indian National Trade Union Congress.

1	2	3	4	5	6
5.	Suti Mill Mazdoor Sabha, Ganganagar	11.10.64	AITUC	200	Not available
6	Ganganagar Division Bijli Karmachari Union, Ganganagar	16.11.64	Prantiya Vidyut Jal Mazdoor Federation	50	107
7.	Rajasthan Canal Project Overseers Association, Suratgarh	1.11.64	INTUC	164	150
8.	Bhakhra-Gang Nahar Rashtriya Mazdoor Union, Hanumangarh	11.11.64	INTUC	90	75
9.	The Ganganagar Sugar Mills Employees Union, Ganganagar	8.3.65	AITUC	50	115
10.	Govind Steel Industry Mazdoor Union, Ganganagar	31.3.65	—	18	Not available
11.	Rajasthan Canal Draftsmen's Association, Suratgarh	1.4.65	—	100	100
12.	Ganganagar Water Works Labour Union, Ganganagar	4.4.66	—	25	25
13.	Rashtriya Jal Dae Mazdoor Sangh, Hanumangarh	27.3.66	—	50	50
14.	Kendriya Krishi Yantrik Farm Rashtriya Mazdoor Union, Suratgarh	20.11.62	INTUC	225	264
15.	Nagar Palika Chungi Karmachari Union, Ganganagar	15.865	AITUC	46	53
16.	Nagar Palika Safai Karamchari Union, Suratgarh	14.6.65	—	50	Not available

These registered trade unions have also helped in the arbitration of disputes, under the Industrial Disputes Act, 1947, as amended by

Industrial Disputes (Rajasthan Amendment) Act, 1958, which came into force from 1st July, 1960. One major case in recent years, sent for arbitration, was in the year 1963-64, regarding the dispute between the Ganganagar Sugar Mills and the Sugar Mills Rashtriya Mazdoor Congress, Ganganagar, wherein Shri J. S. Ranawat, the former Chief Justice of Rajasthan, acted as the arbitrator.

LABOUR WELFARE

With the gradual industrialisation of the district, labour is expected to occupy an important place in the economic life of the area. It is, therefore, absolutely necessary that living conditions, not only inside but also out side the factory, should be conducive to the promotion of good health and happy social life of the workers. The working conditions within the factory are regulated by various labour laws while a Labour Welfare Centre and a Sub-Centre, at Ganganagar, look after their welfare activities outside.

Labour Legislation

A list of Central Acts, State Acts and Rules, regulating the working conditions of labour, [illegible] given elsewhere in this volume. Implementation of the various laws is the responsibility of the officers of the Labour Department, particularly the Labour Inspector and Labour Welfare Inspector, who actively work in the district. The Labour Welfare Inspector looks after the Labour Welfare Centres, run by the Labour Department. An Inspector of Factories & Boilers, with headquarters at Bikaner, supervises the implementation of the Factories Act, 1948, the Boilers Act, 1923 and the Payment of Wages Act, 1936 and is ex-officio in-charge of the Industrial Housing Scheme. The Labour Inspector ensures implementation of the provisions of the Minimum Wages Act, 1948, andthe Payment of Wages Act, 1936, in scheduled employments and undertakings covered by the Motor Transport Workers Act, 1961.

The district comes under the administrative jurisdiction of Jodhpur-Bikaner region, which is headed by a Regional Assistant Labour Commissioner stationed at Jodhpur[1]. He looks after the labour problems through a Labour Officer, with headquarters at Bikaner.

1. A separate Bikaner labour-region has since been formed and an Assistant Labour Commissinor is posted at Bikaner, in place of a Labour Officer.

Employees' State Insurance[1]

Employees' State Insurance Scheme is in operation in all the factories in Ganganagar district, using power and which employ 20 or more persons. It presently covers about 3,500 industrial workers[2], as against 1,300 on 29th March, 1959, when the scheme was initiated in the district. Under this scheme free medical treatment in sickness, unemployment, injury or disablement, and maternity benefits and dependents' benefits are made available to the insured workers and their families. The scheme is operating in Shree Sadul Textiles Ltd., since its inception and has been extended to employees of the Rajasthan State Electricity Board, Water Works (Municipal Council), Ganganagar Sugar Mills, United Motors, Ganganagar, Rajasthan State Road Transport Corporation, Gupta Industrial Corporation and Bharat Motors, Ganganagar. It is being administered through a sub-level office of the Employees' State Insurance Corporation, which runs a dispensary at Ganganagar town.

Housing

Under the Subsidised Industrial Housing Scheme, financial assistance, in the form of subsidies and loans, is provided by the State Government to approved agencies like the Co-operative Workers' Housing Societies etc., for the construction of houses for workers. About 250 single-room and double-room tenements have been constructed at Ganganagar since 1955. Loans and subsidies were also sanctioned by the Government to Ganganagar Sugar Mills, which constructed 100 such houses.

Works Committees

Under the provisions of the Industrial Disputes Act, 1948, Works Committees are to be formed for each factory, employing 100 or more workers. These committees act as consultative bodies for the following matters relating to labourers :

(a) Welfare facilities like free education and uniform
(b) Canteen arrangement and provisions for latrines, urinals, cycle-stands, rest rooms etc.
(c) Paid holidays and payment of wages in time
(d) Bonus
(e) Grant of increment of staff, confirmations etc.

1. Under the Employees' State Insurance Act, 1948.
2. Source : Office of the Employees' State Insurance Corporation, Jaipur.

(f) Increase in production
(g) Housing facilities, festival holidays, water supply etc. and
(h) Consumers' co-operative stores.

Works Committees are, at present, functioning in the following industrial establishments, in the district :

1. Ganganagar Sugar Mills Ltd., Ganganagar
2. Periwal Ice, Ginning and Pressing Factory, Ganganagar
3. Narendranath Amarnath Cotton Ginning and Pressing Factory, Raisinghnagar
4. Shree Sadul Textiles Ltd., Ganganagar
5. Mahavir Cotton Ginning and Pressing Factory, Kesrisinghpur
6. Rajasthan State Electricity Board, Ganganagar.

APPENDIX I

Name of the factories supplied with power during 1966

1. Shree Sadul Textiles Ltd. Ganganagar
2. Ganganagar Industries Ltd., Ganganagar
3. M/s Hanuman Dass Sajan Kumar, Ganganagar
4. Mahalaxmi Mills, Ganganagar
5. Periwal Ice Factory, Ganganagar
6. Ganganagar Sugar Mills Ltd., Ganganagar
7. Nagori Cotton Mills, Sadulshahr
8. Birla Mills, Kesrisinghpur
9. M/s Narendra Nath Amar Nath, Raisinghnagar
10. M/s Periwal Company, Hanumangarh
11. M/s Sundar Dass Jatia Ice Factory, Hanumangarh Town

APPENDIX II

Names of the villages electrified

S. No.	Village	Tahsil	Date or year of Electrification
1	2	3	4
Ganganagar Power Sub-Division			
1.	Sadulshahr	Hanumangarh	July, 60
2.	Kheruwali	Hanumangarh	17.4.63
3.	Prithvirajpur	Ganganagar	April, 60
4.	Mohanpura	Ganganagar	8.7.63
5.	Chak Nathwali (2 M.L.)	Ganganagar	10.5.63
6.	Chak S. Y.	Ganganagar	8.8.63
7.	Chak 7 Y	Ganganagar	8.8.63
8.	Chak 1 A	Ganganagar	7.7.64
9.	Chak 3 M. L.	Ganganagar	10.5.63
10.	Chak 6 E Chhoti	Ganganagar	10.5.63
11.	Chak 5 Z	Ganganagar	1964-65
12.	Chak 7 E	Ganganagar	30.6.64
13.	Lalgarh	Ganganagar	30.8.64
14.	Padampur	Padampur	13.5.65
Hanumangarh Power Sub-Division			
15.	Roranwali	Hanumangarh	28.5.62
16.	Satipura	Hanumangarh	30.1.65
17.	Jawalasinghwala	Hanumangarh	2.2.65
18.	Sangaria *Mandi*	Sangaria	8.7.60
19.	Talwara Jhil	Tibi	23.8.62
20.	Rawatsar	Tibi	30.3.64
21.	Salemgarh	Tibi	15.5.63
22.	Makasar	Hanumangarh	31.5.62
23.	Dabli	Hanumangarh	11.4.63
24.	Pir Kamaria	Tib	11.4.64
25.	Kamrani	Tibi	2.2.65
26.	Dholipal	Sangaria	25.5 62
27.	Pilibangan	Suratgarh	1.9.60
28.	Rampura	Suratgarh	17.7.65

1	2	3	4
29.	Sherekhan	Hanumangarh	15.9.65
30.	Tibi	Tibi	16.10.'5
31.	Surewala	Tibi	8.5.65
32.	Chak 34 STG	Suratgarh	25.3.66
33.	Lilanwali	Sangaria	31.3.66
34.	Lakhuwali (only R. C. P. connection)	Hanumangarh	May 1964
35.	Masani	Tibi	15.5.63
Raisinghnagar Power Sub-Division			
36.	Kesrisinghpur	Karanpur	15.10.60
37.	Bijainagar	Raisinghnagar	21.1.61
38.	Jetsar	Raisinghnagar	14.1.61
39.	Sarupsar	Suratgarh	7.1.62
40.	Chak 5.0	Karanpur	5.3.63
41.	Chak 6.0	Karanpur	24.5.63
42.	Chak 22 P. S.	Raisinghnagar	29.6.64
43.	Chak 26 P. S.	Raisinghnagar	1.1.65
44.	Chak 24 G. B.	Raisinghnagar	10.2.65
45.	Chak 21 G. B.	Raisinghnagar	16.7.64
46.	Gurusar (2 W)	Karanpur	10.5.63
47.	Chak 19 H	Karanpur	21.4.63
48.	Chak 18 H	Karanpur	10.5.63
9.	Chak 16 H	Karanpur	29.5.63
50.	Chak 17 H	Karanpur	29.5.63
51.	Chak 3 W	Karanpur	28.12.64
52.	Chak 1 U	Karanpur	30.7.63
53.	Chak 1 V	Karanpur	22.4.63
54.	Chak 7 G. B.	Raisinghnagar	7.7.64
55.	Chak 2 G. B.	Raisinghnagar	5.2.63
56.	Chak 2 V A	Karanpur	20.10.65
57.	Chak 19 P. S.	Raisinghnagar	31.3.66
58.	Chak 15 P. S.	Raisinghnagar	31.3.66
59.	Chak 14 M. L.	Raisinghnagar	31.3.66
60.	Rirmalsar	Padampur	23.4.66

1. Source: Office of the Executive Engineer, Rajasthan State Electricity Board, Ganganagar.

APPENDIX III

Registered Working Factories in Ganganagar District 1967[1]

S. No.	Name of the factory	No. of workers employed	Ownership
1	2	3	4
	Cotton Ginning and Baling		
1.	Ganganagar Industries Ltd., Ganganagar	180	Private
2.	Nav Bharat Industries, Industrial Area, Ganganagar	15	,,
3.	Sahuwala Oil and Ginning Factory, Ganganagar	44	,,
4.	Rajasthan Cotton Press, Ganganagar	50	,,
5.	Nagori Brothers Flour, *Dal*, Oil, Rice and Ginning Mills, Ganganagar	75	,,
6.	Periwal Ice, Ginning and Pressing Factory, Ganganagar	30	,,
7.	Mahalaxmi Cotton Ginning and Pressing Factory, Ganganagar	33	,,
8.	Shri Bijainagar Industries Ltd. Ganganagar	34	,,
9.	Rajasthan Cotton and Rice Mills, Bijainagar	20	,,
10.	Shri Karanpur Ginning and Pressing Factory, Karanpur	145	,,
11.	Jai Bharat Ginning Ice Factory, Karanpur	15	,,
12.	Jai Mahalaxmi Cotton Ginning and Pressing Factory, Karanpur	55	,,
13.	Narendra Nath Amar Nath Cotton Ginning and Pressing, Oil, Rice (Mills), Factory, Raisinghnagar	94	,,
14.	Shiv Ratan Ramesh Chandra, Raisinghnagar	15	,,
15.	Mangal Chand Than Mal Surana Cotton Ginning and Oil Flour Mills, Raisinghnagar	15	,,

1. Source: Office of the Chief Inspector of Factories & Boilers, Rajasthan, Jaipur.

1	2	3	4
16.	Krishna Flour and Oil Cotton and Ginning Mills, Ganganagar	4	Private
17.	Sadulshahr Ginning and Sawing Mills, Sadulshahr	42	,,
18.	Mahavir Cotton Ginning and Pressing Factory, Kesrisinghpur	75	,,
19.	Birla Mills Ginning and Pressing Factory, Kesrisinghpur	88	,,
20.	Jain and Teja Cotton Factory, Padampur	4	,,
21.	Shri Durga Cotton Ginning and Pressing Factory and Ice Factory, Padampur	67	,,
22.	Shanker General Mills, Padampur	4	,,
23.	Padampur Ginning and Ice Factory, Padampur	6	,,
24.	Nav Durga Ginning Rice Mills, Jaitsar	3	,,
25.	Nagori Cotton Pressing Mills, Sadulshahr	82	,,
26.	Saraf Oil and General Mills, Hanumangarh	7	,,
27.	Goyal Cotton and General Mills, Sadulshahr	11	,,
28.	Niranjan Lal Pawan Kumar, Sangaria	18	,,
29.	Mahavir Flour aud General Factory, Pilibangan	37	,,
30.	Sadulshahr Cotton Ginning and Pressing Factory, Sadulshahr	75	,,
31.	Ram Swaroop Dass Santlal Flour, *Dal* and Ginning Mills, Ganganagar	6	,,
32.	Gauri Shanker Cotton Ginning and Pressing Factory, Sadulshahr	51	,,
33.	Durga Cotton Ginning and *Dal* Mill, Pilibangan	37	,,
34.	Krishna Cotton and General Mill, Pilibangan	10	,,
35.	Sethia *Dal* and General Mill, Hanumangarah Town	43	,,
36.	Meher Singh Har Baksha Singh Cotton Ginning and Pressing Factory, Ganganagar	1 00	,,
37.	Surajmal Ram Prasad, Gajsinghpur	20	,,
38.	Ashok Mill, Sangaria	1	,,
39.	Mohindra *Dal* Mills, Sangaria	6	,,
40.	Agrawal Flour and Oil Mills, Karanpur	3	,,

1	2	3	4
41.	Mangal Flour Mills, Karanpur	2	,,
42.	Bharat Flour and Oil mills, Hanumagarh	2	,,
43.	Brij Lal Prahlad Rai Ginning and Flour Mills, Sangaria	2	,,
44.	Mahavir Flour Mills, Dholipal	1	,,
45.	Janta Flour and Rice Mills Bijainagar	5	,,
46.	Daulat Flour and Oil Mills, Sangaria	2	,,
47.	Mohan Lal and Co., Nizampura (Tahsil Karanpur)	1	,,
48.	Meghi Ram Shyam Lal Agrawal Flour Mills, Kesrisinghpur	1	,,
49.	Padam Industries, Sangaria	1	,,
50.	Ganesh Flour and Oil Mills, Hanumangarh	3	,,
51.	Gurunanak Flour Mills, Jaitsar	2	,,
52.	Hanuman Flour Mills, Pilibangan	2	,,
53.	Golcha Ginning and Oil and *Dal* Mills, Dholipal	7	,,
54.	Vishambhar Cotton Ginning and Oil Factory, Bhadra	8	,,
55.	Ram Chandar Dass Om Prakash Cotton Ginning Factory, Sangaria	2	,,
56.	Moti Flour and Ginning Factory, Sangaria	2	,,
57.	Banthia *Dal* and Flour Mills, Dholipal	9	,,
58.	Shri Durga Cotton Ginning and Pressing and Ice Factory, Padampur	75	,,
	Total	1737	

Wool Baling and Pressing

59.	Shant Lal Gajanand Cotton Ginning Factory, Raisinghnagar	51	,,
60.	Mahalaxmi Cotton Ginning and Pressing Factory, Sangaria	75	,,
61.	Birla Mills Ginning and Pressing Factory, Sangaria	87	,,
62.	Rajasthan Cotton Ginning Factory, Sadulshahr	19	,,

1	2	3	4
63.	Shri Jai Shanker Flour Mills, Hanumangarh	5	Private
64.	Associated Cotton Traders Ltd. Ganganagar	38	,,
	Total	275	
	Other wool cleaning		
65.	Mahalaxmi Factory, Suratgarh	3	,,
66.	Periwal Ice, Ginning and Pressing Factory, Unit No. 2, Ganganagar	50	,,
67.	Nayamat Rai Murli Lal, inside Periwal Ice, Ginning and Pressing Factory, Ganganagar	37	,,
68.	Mohan Lal Moti Lal Cotton Ginning Factory, Ganganagar	47	,,
69.	Sawal Dass Madho Dass, inside Rajasthan Cotton Press P. Ltd., Ganganager	48	,,
70.	Bhanwar Lal Prem Suckh, Ganganagar	75	,,
71.	Kolak & Company, Ganganagar	45	,,
72.	Banthia Cotton Corporation, Ganganagar	75	,,
73.	Krishna Trading Company, Ganganagar	75	,,
74.	Narain Dass Raja Ram and Co., P. Ltd., Ganganagar	75	,,
75.	Shiv Ratan Ramesh Chand, Raisinghnagar	30	,,
76.	Mohata Commercial Co. P. Ltd. (Cotton Picking), Ganganagar	24	,,
77.	Munshi Ram Jagannath, Padampur	75	,,
78.	Rameshwar Lal Ghanshyam Dass, Padampur	75	,
79.	Agrawal Brothers Cotton Ginning Factory, Ganganagar	37	,,
80.	International Cotton Corporation P. Ltd., Raisinghnagar	175	,,
81.	Shri Keshavji M. Thalker M/s International Cotton Corporation P. Ltd., Ganganagar	187	,,
82.	Mahavir Cotton Ginning and Pressing Factory (Picking Section), Kesrisinghpur	75	,,

1	2	3	4
83.	Maji Ram Khyali Ram Cotton Ginning Factory, Ganganagar	45	Private
84.	Narendra Nath Amar Nath (Yellow Picking Deptt.), Raisinghnagar	98	,,
85.	Talwaria Brothers, Ganganagar	50	,,
86.	Hanuman Flour Mills, Ganganagar	50	,,
87.	Dwarka Dass and Co., Ganganagar	95	,,
88.	Maheshwari Brothers and Co., Hanumangarh	30	,,
89.	Agrawal Mills (Mahalaxmi Cotton and Ginning and Pressing), Ganganagar	100	,,
90.	Chhog Mal Nagar Mal Cotton Cleaning Factory, Ganganagar	33	,,
91.	Bal Kishan Vaid Prakash Cotton Cleaning Factory, Kesrisinghpur	100	,,
92.	Kundan Lal Chamba Ram, Padampur	100	,,
93.	Gordhan Dass Ramji Lal Cotton Cleaning Factory, Sadulshahr	50	,,
94.	Chuni Lal Pranjiwan Dass and Co., Ganganagar	100	,,
95.	Malwa Flour Mills, Kesrisinghpur	9	,,
96.	Mahalaxmi Timber Stores, Ganganagar	6	,,
97.	Jain Rice & Flour Mills, Suratgarh	4	,,
	Total	2,078	
	Flour Mills		
98.	Ganesh Flour, Dal, Besan and Oil Mills, Ganganagar	5	,,
99.	Bharat Oil, Flour and Ginning Mills, Ganganagar	2	,,
100.	Shri Girdhari Lal Ram Dayal, Gajsinghpur	3	,,
101.	Shri Lachhi Ram Agrawal, Hanumangarh	15	,,
102.	Mahavir Flour Mills, Hanumangarh	11	,,
103.	Periwal & Company, Hanumangarh	5	,,
104.	Bajrang Flour Mills, Sadulshahr	3	,,

1	2	3	4
105.	Hanuman Flour and Ginning Mills, Karanpur	2	,,
106	Jagdish Flour Mills, Ganganagar	19	,,
107.	Lachhi Ram Flour, Oil and Ginning Mills, Ganganagar	20	,,
108.	Teltia Flour and Rice Mills, Bhadra	8	,,
109.	Shri Bajrang Flour Mills, Nohar	6	,,
110.	Durga Flour Mills, Sangaria	13	,,
111.	Shri Mahavir Flour, Dal, Rice and Oil Mills, Raisinghnagar	8	,,
112.	Mahavir Flour Mills, Kesrisinghpur	9	,,
113.	Mahadev Flour, Grain, Dal, Oil and Cotton Ginning Factory, Pilibangan	11	,,
114.	Vayu Nandan Flour Mills, Nohar	4	,,
115.	Ramesh Cotton Ginning Factory, Sadulshahr	18	,,
116.	Ganesh Flour and Cotton Ginning Mills, Karanpur	2	,,
117.	Mahadev Flour Mills, Ganganagar	3	,,
118.	Gurunanak Flour Mills, Sangaria	4	,,
119.	Ramesh Cotton Ginning and Flour & Oil Mills (Factory No. 2), Sadulshahr	98	,,
	Total	269	
	Rice Mills		
120.	Prakash General Mills, Hanumangarh	20	,,
121.	Bharat Rice Ginning Mills, Hanumangarh	20	,,
	Total	40	
	Dal Mills		
122.	Manohar Lal Surendra Kumar Ahuja, Raisinghnagar	3	,,
123.	Bhinai Rice and Flour Mills, Hanumangarh	3	,,
124.	Maheshwari Oil and Dal and Ginning Factory, Ganganagar	22	,,
125.	Agrawal Mills, Ganganagar	37	,,
126.	Durga Flour Mills, Nohar	3	,,

1	2	3	4
127.	Sethia Dal & General Mills, Hanumangarh Town	10	Private
128.	Sharda Roller Flour Mills, Ganganagar	9	,,
	Total	87	
	Sugar Mills		
129.	Shri Ganganagar Sugar Mills Ltd. Ganganagar	600	Government
130.	Agrawal Brothers, Naya Chowk 6 Chhote, Ganganagar	30	Private
131.	Rajasthan Kutir Udyog Sangh, Padampur	20	,,
132.	Rajasthan Kuteer Udyog, Padampur	100	,,
	Total	750	
	Manufacture of Edible Oil other than Hydrogenated Oils		
133.	Raghu Lal Khandu Ram, Ganganagar	7	,,
134.	Prasad Oil & Dal Mills, Sadulshahr	3	,,
135.	Shri Maheshwari Brothers, Nohar	7	,,
136.	Krishna Flour and Dal and Oil Mills, Bhadra	2	,,
137.	Mahavir Mills, Sangaria	15	,,
	Total	34	
	Cotton Mills		
138	Shri Sadul Textiles Ltd., Ganganagar	1,286	,,
	Total	1,286	
	Saw Mills		
139.	Gupta Oil and Saw Mills, Ganganagar	6	,,
140.	Hiralal Ramjilal Industries Mills, Hanumangarh Town	15	,,
141.	Kailash Industrial Mills, Hanumangarh	9	,,
142.	Mahavir Flour Mills, Nohar	8	,,
143.	Ram Rikshpal Chhaganlal Saw Machine, Ganganagar	3	,,
144.	Baba Nanak Factory, Raisinghnagar	3	,,
145.	Mahavir Flour, Oil and Saw Mills, Padampur	6	,,

1	2	3	4
146.	Shri Guru Govind Singh Saw and Flour Mills, Karanpur	3	Private
147.	Sardar Saw Mills, Ganganagar	6	,,
148.	Vidya Sagar Ara Machine, Industrial Area, Ganganagar	6	,,
149.	Asu Ram & Sons Saw Mills, Ganganagar	7	,,
150.	Ganesh Saw Mills, Industrial Area, Ganganagar	5	,,
151.	Ram Dutt Sehgal & Co., Industrial Area, Ganganagar	2	,
152.	Janta Flour, & Saw Mills, Ganganagar	4	,,
153.	Shri Ganesh Flour, Oil & Dal Mills, Nohar	5	,,
154.	Ramgaria Flour & Saw Mills, Village CN 24 PS, (Tahsil Raisinghnagar)	2	,,
155.	Ranjit Singh Mahendra Singh Saw Mills, Gajsinghpur	2	,,
156.	Ganesh Flour Mills, Raisinghnagar	4	,,
157.	S. Sarwan Singh & Co. Saw Mills, Industrial Area, Ganganagar	3	,,
158.	Vishwakarma Ara Machine, Ganganagar	3	,,
159.	National Flour & Saw Mills, Padampur	4	,,
160.	Rajendra Saw Mills, Industrial Area, Ganganagar	6	,,
161.	Kushal Yan Factory, Padampur	4	,,
162.	Kishorilal Narendra Kumar, Sangaria	2	,,
163.	Guru Charan Dass Chet Ram Ara Machine, Kesrisinghpur	6	,,
164.	Arjan Singh Punjab Singh Laha Singh Ganesh Flour Mills, Kesrisinghpur	6	,,
165.	Shri Gurunanak Nirankari Saw & Flour Mills, Karanpur	4	,,
166.	Vishwakarma Saw Mills, Raisinghnagar	3	,,
167.	Bhadoo Flour & Saw Mills, Suratgarh	3	,,
168.	Hanuman Flour & Ara Machine, Bhadra	1	,,
169.	Dalip Singh Mukand Lal Flour & Saw Mills, Gulabewala P.O. Nizampur	2	,,

1	2	3	4
170.	Shri Makhan Singh Sullakhan Singh Saw & Flour Mills, Karanpur	4	Private
171.	Jamna Dass Krishna Kumar, Kesrisinghpur	2	,,
172.	Manak Chand Fakir Chand Flour Mills, Hanumangarh	4	,,
173.	Ganesh Flour, Rice, Oil and Ginning Factory, Anupgarh	2	,,
174.	Sohanlal Rathi, Gajsinghpur	6	,,
175.	Khalsa Flour Mills, Chak 579-B (Tahsil Anupgarh)	6	,,
176.	Ramgaria Timber Store, Ganganagar	5	,,
177.	Ashok Saw Mills, Ganganagar	5	,,
178.	Ramgaria Saw and Flour Mills, Karanpur	1	,,
179.	Bharat Flour & Oil Mills, Bijainagar	5	,,
180.	Anant Ram Ara Machine, Bhadra	5	,,
181.	Gyan Chand Bahadur Chand Ara Factory, Padampur	4	,,
182.	Panna Singh & Sons, Ganganagar	4	,,
183.	Ramgaria Saw & Flour Mills, Jaitsar	2	,,
184.	Megh Raj Kishan Chand Agrawal, Gajsinghpur	2	,,
	Total	200	

Letter Press & Lithographic Printing and Book-Binding

185.	Shankar Printing Press, Ganganagar	12	,,
186.	Bharat Printing Press, Ganganagar	2	,,
187.	Janta Printing Press, Ganganagar	2	,,
188.	Sewak Printing Press, Ganganagar	2	,,
189.	Amrit Printing Press, Ganganagar	1	,,
190.	Krishna Printing Press, Ganganagar	4	,,
191.	Laxmi Printing Press, Ganganagar	2	,,
192.	Agrawal Printing Press, Ganganagar	2	,,
193.	Kashmir Art Press, Ganganagar	4	,,

1	2	3	4
194.	Prem Art Press, Nohar	2	Private
195.	Gupta Printing Press, Ganganagar	2	,,
196.	New Light Printing Press, Hanumangarh Town	1	,,
197.	National Printers, Ganganagar	3	,,
198.	Public Printing Press, Ganganagar	1	,,
199.	Ganesh Printing Press, Ganganagar	7	,,
200.	Bhim Printers, Ganganagar	4	,,
201.	Narendra Mudranalaya, Sangaria	2	,,
202.	Pawan Printers, Raisinghnagar	2	,,
203.	Shanker Press, Bhadra	2	,,
204.	Malhotra Art Press, Ganganagar	3	,,
205.	Navyug Printing Press, Ganganagar	2	,,
206.	Jai Bharat Printing Press, Ganganagar	2	,,
	Total	64	
	Others		
207.	Rajasthan Canal Project, Central Workshop, Hanumangarh Town	120	Government
	Total	120	
	Agricultural Implements		
208.	Dalmia Iron Industries, Ganganagar	11	Private
209.	Govind Steel Industries, Ganganagar	8	,,
	Total	19	
	General		
210.	Digvijai Steel Industries, Ganganagar	24	,,
	Total	24	,,
	Repairs of Motor vehicles		
211.	Union Motors, Hanumangarh Highway, Ganganagar	14	,,
212.	Sharma Engineering Corporation, Ganganagar	13	,,
213.	Kartar Engineering Works, Ganganagar	7	,,

1	2	3	4
214.	Central Workshop, Rajasthan Canal Project, Suratgarh Junction	209	Government
215.	Base Workshop Central Mechanised Farm, Suratgarh	75	,,
	Total	318	
	Manufacturing of Professional & Scientific Measuring, Controlling Instruments		
216.	Janta Foundry Works, Ganganagar	8	Private
	Total	8	
	Electric Light & Power		
217.	Rajasthan State Electricity Board, Ganganagar	15	Local Fund
	Total	15	
	Water supply		
218.	Municipal Engineer, Water Works (Municipal Council,) Ganganagar	45	,,
	Total	45	
	GRAND TOTAL	7,369	

CHAPTER VI

BANKING, TRADE AND COMMERCE

BANKING AND FINANCE

History of Indigenous Banking

"The Indian States of Rajputana enjoy the reputation of being the home of indigenous bankers since ancient times".[1] This is true of Ganganagar district as well.

Long before the district came into existence in its present form, the people belonging to the *Baniya* and the Brahmin communities were aying the role of indigenous bankers and money-lenders. These persons are known by different nomenclatures viz., *Mahajan*, *Shahukar*. *Shah*, etc. The Sikh community are late settlers and have attained prominence only after the advent of the Gang Canal. Those who originally inhabited this area were Jats, Johiyas, Saraswat Brahmins, Agrawals, Maheswaris, Oswals, Saraogis and Modis. The word *Baniya* appears to have been derived from the Sanskrit word, *Vanij* which simply means a merchant.

The indigenous banker, besides lending money, accepts deposits, draws and discounts *Hundis* and finances trade and industry, while a money-lender only advances loans, particularly for agricultural purposes.

Indigenous bankers and money-lenders of this district could be discussed under the following four groups:

(i) Big indigenous bankers;
(ii) Itinerant money-lenders;
(iii) Town money-lenders; and
(iv) Village money-lenders.

The village money-lender was at the lowest rung of the ladder and lent money to the cultivators and other villagers for the purchase of cattle, seed and other necessities of life and advanced even corn to enable over temporary scarcity of grain. The village money-lenders

1. *Report of the Banking Enquiry Committee* for the Centrally Administerea Areas, 1929-30, Vol. I, Government of India, p. 328.

included both the professional and the non-professionals. The non-professional money-lenders, such as big cultivators, merchants, traders, pensioners, priests and brokers etc., were those who mainly engaged themselves in other occupations but granted financial accommodation to their less fortunate brethren in times of need. The professional money-lenders had been the traditional suppliers of credit whose chief vocation was money lending. In this district, most of the money-lenders were mainly traders and money-lending as the sole occupation was not much in vogue.

The town money-lenders were also of two types; (i) those whose business was limited to the town and neighbouring suburbs only and (ii) those who carried hereditary profession on a large scale and had branches in various cities of India. They issued *Hundis* and accepted deposits on interest.

Itinerant or the wandering money-lenders like the Pathans, the Kabulis, the Rohillas and the Banjaras operated both in urban and rural areas. In urban areas, they advanced loans to the labourers and low paid employees, who were required to repay it in instalments, while in rural areas their clientage consisted mainly of poor people who could not obtain credit from other source. They visited the villages at frequent intervals and lent money or sold goods like, salt, chillies, tobacco, cloth and other necessities of life on credit to the poor and the needy. They entered these sales as cash loans in their account books and generally charged a very high rate of interest. At the harvesting time, they visited the villages again with their account books and realised their dues either in cash or in kind. These itinerant money-lenders were not fastidious about proper security nor did they rely on the legal process for recovery of their dues. They depended on coercive methods, which they could freely employ.

Khandiwalas also advanced loans to the people of moderate means, in multiples of Rs. 10. Only in a few cases sums over Rs. 100 were advanced. The general system was to recover Rs. 12 for every Rs. 10 advanced, in equal monthly instalments. Some *Khandiwalas* deducted the interest in advance from the amount advanced.

Big indigenous bankers were organised more or less on the lines of joint-stock banking system. They accepted deposits, allowed the depositors to draw on current accounts, dealt in negotiable instruments and sold and purchased *Hundis* and commercial documents etc. These indigenous bankers financed a considerable portion of trade and industry in the district.

The business methods and system of accounts of the money lenders were very simple, secretive and flexible, varying from individual to individual according to the circumstances of the debtor, nature of security offered and the customs of the locality. As a rule, small loans were given on the basis of mutual trust and often without a bond or a witness, but large amounts were advanced against promissory notes. Loans were also given on mortgaging of land and houses and pledges of ornaments and, sometimes, against cattle. Loans to meet the current agricultural needs were usually advanced on the personal security of the borrower on the understanding, expressed or implied, that the produce will be sold to or through the money-lenders. The rate of interest charged varied according to the credit worthiness and nature of business of the borrower, the terms of the loan and the security offered.

Grain loan

A grain loan was the current market price of the quantity of grain borrowed and, debited to the loanee's account and interest was charged on it. The other types of grain loans were *Sawai* system and *Batai* system. Under the former, the borrower was required to return one and a quarter of the original quantity of grain borrowed by him while under the latter system grain loan to the cultivator was given on the understanding that he will share his next crop with the creditor in mutually agreed proportion. The money-lenders carried forward the unpaid balance standing at the cultivator's account at the end of the year and opened a new account in a fresh ledger. No receipts for repayments were, as a rule, given by these money-lenders. The loan transactions were carried from one generation to the other and unsettled debts were often bequeathed as a legacy to the heirs alongwith the assests. Having regard to his position in society and in the interest of cordial relations between him and the money-lender and also driven by traditional impluse, the cultivator ordinarily did not by himself, resort to the court of law, unless dragged to it by the money-lender for non-payment of debts, in which case he had to go in for further loans, at exhorbitant rates of interest from other sources to defend himself. No doubt, though the money-lenders provided considerable assistance to the borrowers, they were more concerned with pushing their own interests and their terms were seldom reasonable and cases of victimisation by them very common.

The mode of business of the urban money-lenders was similar to that of the village money-lenders except that the urban money-lenders often advanced money on *Hundis* and their operations were on a larger scale.

They combined the business of money-lending with that as commission agents, largely handling the marketing of the produce of the cultivators. There was no clear demarcation between short term and long term finance. They generally advanced cash loans on personal securities, repayable either in cash or in kind, though the latter was preferred as the creditors maintained their own shops in most of the cases. Sometimes, a cultivator was allowed to buy seeds, manures and livestock on credit with the implied understanding that he will sell his crop to the creditor and pay interest thereon. Loans were advanced generally against promissory notes, a pronotes, *Dastawez* or deeds and through mortgage of a house, piece of land or any other property. Low rate of interest was charged in cases where the banker considered his money safe.

The easy accessibility of the indigenous bankers, their flexible lending practices and the special facilities they offered to the customers to suit individual requirements, brought them a large clientage. The clients were generally those who had hereditary dealings with them.

Khatapeta and *Hath Udhar* were the two systems known in Ganganagar, through which one banker used to obtain loans from the other banker. Under the *Khatapeta* system, debit and credit entries were made in the account books while under *Hath Udhar* system, no entries were made in the account books as the money was loaned only for very short periods.

Indebtedness

No economic investigation or survey to indicate the position of rural-indebtedness in this district has been conducted so far except the observations made by the Bikaner Banking Enquiry Committee, 1929–30, and in assessment reports. The former observed, "In our examination of witnesses from various tahsils representing agriculture interests, we came to understand that the current requirements of cultivators per plough come to an average of Rs. 175 per year. The volume of agriculture indebtedness as has been arrived at by us after a close enquiry into 9 villages and an indebtedness enquiry in tahsils of Hanumangarh, Anupgarh, Sujangarh and Suratgarh comes to about Rs. 174 per head while the non-agricultural indebtedness comes to about Rs. 290 per head. It is difficult to arrive at any exact figure but this amount may be safely relied upon with slight variations".

On the question of unsecured debts, Rai Sahib Behari Lal remarked in the Assessment Report of the First Regular Settlement of Gang

Canal Colony thus: "It is difficult to ascertain the extact amount of debts raised by them. The total debts ascertained by the Settlement Officer amounts to Rs. 25 lacs in round figures". The following analysis was brought out regarding the causes, purposes and the quantum of rural debts in the colony :

Cadse or purpose	Amount (Rs.)	Percentage
1. Replacement of cattle	2,00,000	8
2. Marriage and other social customs	4,00,000	16
3. Purchase of colony land	12,00,000	48
4. Restoration of resumed land	4,00,000	16
5. Litigation	1,00.000	4
6. Construction of buildings	1,00,000	4
7. Other causes	1,00,000	4
Total	25,00,000	100

It was estimated that the professional money-lenders provided 77 per cent of the finances, rich *Zamindars* 20 per cent, Government ½ per cent, co-operative societies 1 per cent and wandering money-lenders 1½ per cent.

With the development of alternate sources of credit in the district, the importance of indigenous bankers and money-lenders is on the decline. Other institutions which deal in credit are (i) Joint Stock Banks; (ii) Co-operative Credit Societies; (iii) Financial Corporations; (iv) Factories and the merchants; and (v) the Government.

Joint-Stock Banks

The history of the development of commercial banking in Ganganagar district is only four decades old. The Bikaner State Savings Bank established its Ganganagar branch in 1929-30. It offered lucrative rates of interest to depositors. Branches of this bank were opened at Raisinghnagar and Anupgarh also during the year 1935-36. The Bank had its own arrangements for dealings in London and in the principal cities of British India. It acted as a correspondent for 11 banks in Europe and America and acted as an agent for the collection of premiums on behalf of a number of Insurance Companies, free of any charge. During the year 1941-42, the scope of activities of the bank was further extended by an agreement entered into with the Government of India, under which the

branches of the Imperial Post Offices within Bikaner State stopped opening new savings bank accounts after October, 1942, as this work was taken over by the State Savings Bank. Consequently, the Bank opened its branches at Bhadra, Hanumangarh Junction, Hanumangarh town, Nohar, Suratgarh, Raisinghnagar and Sangaria during the year 1941-42. It provided facilities for encashing letters of credit and traveller's cheques of several banks of international repute, thus serving the tourists in particular and the public in general. The Bank, however, stopped accepting any further deposits in current and fixed deposit accounts with effect from 1st February 1945, after the establishment of the Bank of Bikaner Ltd., on 31st January 1945. This later bank, converted into State Bank of Bikaner, was merged with State Bank of Jaipur in 1963, and the two are now operating as one institution under the name of the State Bank of Bikaner and Jaipur, incorporated in India, under a special statute and as a subsidiary of State Bank of India. The bank is continuing to function as bankers and treasurers to the Government of Rajasthan.

The Punjab National Bank Ltd. established its first branch at Ganganagar in the year 1946. Other branch offices were established at Karanpur and Raisinghnagar, during the year 1959 and at Sangaria and Sadulshahr, during the years 1960 and 1965 respectively. The United Commercial Bank Ltd., with its head office at Calcutta, is serving the district since 30th April, 1958 with one branch located at Ganganagar. The Central Bank of India Ltd., with its head office at Bombay, established its Ganganagar branch on 1st August, 1958. The Bank of Rajasthan Ltd., with its head office at Jaipur, established its branch at Ganganagar on 11th June, 1965.

Thus, at present, the district is being served by 5 banks, through their 23 branches as under.[1]

S.No.	Name of the Bank	Branch Office	Date and year of establishment
1.	State Bank of Bikaner and Jaipur	1. Anupgarh	19.10.1964
		2. Bhadra	9.10.1964
		3. Bijainagar	22.11.1959
		4. Gajsinghpur	11.12.1958
		5. Ganganagar	26.3.1945
		6. Hanumangarh Junction	24.9.1962

1. Source: Office of the Collector, Ganganagar.

1	2	3	4
		7. Hanumangarh Town	2.2.1947
		8. Karanpur	16.4.1945
		9. Kesrisinghpur	13.12.1958
		10. Nohar	26.4.1947
		11. Padampur	2.1.1960
		12. Pilibangan	9.3.1962
		13. Raisinghnagar	16.4.1945
		14. Sangaria	20.4.1945
		15. Suratgarh	27.11.1958
2.	The Punjab National Bank Ltd.*	1. Ganganagar	1946
		2. Karanpur	12.5.1959
		3. Raisinghnagar	13.5.1959
		4. Sadulshahr	29.1.1965
		5. Sangaria	21.3.1960
3.	The Bank of Rajasthan Ltd.	Ganganagar	11.6.1965
4.	The Central Bank of India Ltd.*	Ganganagar	1.8.1958
5.	The United Commercial Bank Ltd.*	Ganganagar	30.4.1958

Co-operative Credit Movement

It was in March, 1920, that the Co-operative Societies Act was passed in the erstwhile State of Bikaner and the first Registrar of Co-operative Societies appointed. In 1924, a qualified inspector was appointed for Ganganagar region. Co-operative societies, registered under the Co-operative Societies Act, 1920, were exempted from the payment of stamp duty and registration fees. The first co-operative credit society was registered in Bhadra tahsil on 21.12.1925.

*The 2nd, 4th and 5th banks have since been nationalised and named as Punjab National Bank, Central Bank of India and United Commercial Bank, in that order.

The progress of the co-operative societies in Gang Canal Colony is shown in the following table:

Year	Number of		Loans (Rupees)	
	Societies	Members	Total	Per member
1928–29	21	47	23,151	49
1938–39	48	1,054	767	1
1944–45	55	1,040	38,250	31
1945–46	60	Not available	4,830	—
1946–47	72	Not available	85,695	—

These co-operative societies gave loans for following purposes and charged 7½ per cent rate of interest[1]:

Purpose	Percentage of the total loans
1. Payment of land revenue and water charges	26
2. Marriage and other household expenses	24
3. Payment of old debts	19
4. Purchase of Cattle	15
5. Purchase of seed	7
6. Purchase of land	4
7. Carrying out business	3
8. Redemption of land	2
Total	100

After the formation of Rajasthan, the Bikaner Co-operative Societies Act, 1920 was repealed by the Co-operative Societies Act, 1953 for the whole State with effect from 1st April, 1953.

1. Behari Lal, Rai Sahib, *Assessment Report of the First Regular Settlement of Gang Canal Colony*.

During the First Five Year Plan period the main attempt in the co-operative sector was at the integration of the co-operative movement which was in varying stages of development and as a result of that the number of societies and their members increased considerably as is evident from the following table :

Particulars	Unit	Year 1951	Year 1956	Percentage increased in 1956 over 1951
(i) Societies	Number	105	381	168
(ii) Members	Number	3,269	11,809	264
(iii) Share capital	Rs.	1,38,151	6,00,079	334
(iv) Working capital	Rs.	11,65,359	25,95,826	123

Till the end of the Second Five Year Plan, 66 per cent of the villages and 25 per cent of families had been brought under the co-operative fold. The number of co-operative societies, along with their membership and capital, functioning in the district, in 1960-61 are given below[1] :

Particulars of Societies	Number	Membership	Capital(Rupees) Share	Capital(Rupees) Working
1. Central Co-operative Banks	2	1,936	12,34,628	7,88,920
2. Land Mortgage Banks	2	290	39,826	42,043
3. Agricultural Credit Societies	703	33,235	14,01,096	64,22,637
4. Marketing Societies	16	2,345	4,37,017	23,72,106
5. Farming Societies	83	1,316	3,28,779	16,61,271
6. Cotton Ginning Factory	1	19	4,100	4,200
7. Sugar Factory	1	1,639	3,24,550	3,55,022
8. Other Non-credit Societies	50	1,039	92,939	20,84,150
9. Consumers' Stores	10	1,604	21,397	63,826
10. Housing Societies	3	141	8,310	31,984
11. Industrial Societies	83	1,720	3,11,276	5,99,259
12. Supervising Unions	16	459	—	—

1. Source : Office of the Assistant Registrar, Co-operative Societies, Ganganagar.

During the Third Five Year Plan, more emphasis was laid on the revitalisation and consolidation of the existing societies. The progress made by the co-operative movement in Ganganagar district till the end of the Third Five Year Plan is evident from the table given below[1]:

Particulars of Societies	Number	Membership	Capital(Rupees) Share	Capital(Rupees) Working
1. Central Co-operative Bank	1	1,247	20,16,962	1,02,34,951
2. Agricultural Credit Societies	768	51,834	25,55,503	1,04,71,106
3. Salary Earners' Societies	5	543	12,328	24,975
4. Primary Land Mortgage Banks	5	2,780	1,54,731	11,12,251
5. Marketing Societies	16	3,811	5,45,754	21,03,152
6. Milk Supply Societies	3	58	14,100	14,120
7. Poultry Society	1	15	1,500	1,500
8. Sheep Breeding Societies	2	27	1,610	1,610
9. Farming Societies	124	1,788	7,47,973	18,56,193
10. Cotton Ginning Society	1	19	4,100	4,100
11. Sugar Factory	1	1,639	3,24,530	3,55,022
12. Agricultural Processing Societies	9	231	23,495	23,495
13. Tenant Farming Societies	36	542	25,980	38,550
14. Other Non-credit Societies	57	1,039	6,19,879	21,41,998
15. Consumers' Stores	32	7,394	2,57,746	6,77,483
16. Housing Societies	3	141	8,320	29,188
17. Weavers' Societies	14	196	1,945	6,033
18. Industrial Societies	68	1,392	1,89,021	3,18,539
19. Supervising Unions	14	246	—	—
20. District Co-operative Society	1	341	—	—
21. Under liquidation	125	2,595	1,500	1,500

1. Source: Office of the Assistant Registrar, Co-operative Societies, Ganganagar.

GANGANAGAR CENTRAL CO-OPERATIVE BANK—A Central Co-operative Mortgage Bank was registered on 20th September, 1930 with 607 individuals and 40 societies as members, Rs. 25,460 as share capital and Rs. 90,620 as deposits. It was organised with a view to providing financial help to the societies. The bank has been rechristened as the Ganganagar Kendriya Sahkari Bank Ltd. All co-operative societies in Ganganagar district are now affiliated to this bank, which, in turn, is affiliated to the Rajasthan State Co-operative Bank Ltd. It spent Rs. 35,000 in constructing its own building at Ganganagar and has been getting subsidy from the Government, from time to time. Loans are advanced by this bank to the affiliated societies and to individual members within the limits fixed by the Board of Management. The societies further advance loans to their members at a rate of interest slightly higher than they themselves pay to the bank. The bank accepts deposits from societies and individual members. The progress made by the bank upto 30.6.1966 is given below[1]:

Particulars	Unit	Position as on 30.6.1966
1. Branch Offices	Number	4
2. Members	Number	1,247
3. Ownership of Capital	Rupees	20,16,962
4. Ownership of deposits	Rupees	30,31,199
5. Statutory reserves	Rupees	1,02,701
6. Bad debt reserves	Rupees	38,031
7. Other reserves	Rupees	23,178
8. Borrowings	Rupees	50,32,880
9. Working capital	Rupees	1,02,34,951
10. Investments	Rupees	10,90,843
11. Call deposits	Rupees	85,741
12. Short term loans	Rupees	76,36,269
13. Medium term loans	Rupees	1,44,453
14. Arrears against co-operative societies	Rupees	77,34,477
15. Arrears against individuals and others	Rupees	46,245
16. Total assets	Rupees	1,13,83,900
17. Accounts	Number	3,202
18. Amount deposited in various accounts	Rupees	28,40,998

1. Source: Office of the Assistant Registrar, Co-operative Societies, Ganganagar.

AGRICULTURAL CREDIT SOCIETIES—There were 768 agricultural co-operative credit societies in the district on 30.6.1966 with a membership of 51,834. These societies provide credit facilities to the agriculturists at reasonable rates of interest,mostly on the personal securities of the borrowers, supplemented by the guarantees of two approved societies. They sometimes also accept standing crops as additional security and provide credit according to the condition of the crops. When the loan asked for is larger than the normal credit limit, the borrower is required to give collateral security in the form of mortgage of his immovable property. In order to ensure timely recovery of the loans, the borrowers are required to sell their produce through the regional purchase and sale societies. Loans amounting to Rs. 46,40,750 were disbursed during the year 1965-66.

MULTI-PURPOSE SOCIETIES—There were 329 multi-purpose societies on 30.6.66 which, besides providing short and medium term credit, undertook to supply agricultural requisites, such as seeds, manures and fodder for the cattle and also arranged joint sale of the members' produce. This enables them to advance loans against the security of agricultural produce. They help their members in various ways and are gaining popularity amongst agriculturists.

SALARY EARNERS' SOCIETIES—5 societies, with 543 members, were functioning in the district, in 1965-66. The first such society was registered in the year 1952, with the object of inculcating the habit of thrift amongst the employees and to advance loans to the members at resonable rates of interest. Loans are recovered in monthly instalments by way of deductions from the salaries of borrowers. A canteen at Ganganagar is being run by one of these societies.

PRIMARY LAND MORTGAGE BANKS—These institutions provide long term credit to the cultivators for the purchase of land and making improvements thereon. The first Primary Land Mortgage Bank was registered in 1959-60. During the year 1965-66, five Primary Land Mortgage Banks were functioning in the district. The number of borrowers from these banks was 116 and loans advanced and recovered amounted to Rs. 3.94 lakhs and Rs. 0.13 lakhs respectively in 1965-66.

MARKETING SOCIETIES—Earliest efforts with regard to development of co-operative marketing, in this district, could be traced to the organisation of proto-type sale societies known as co-operative supply and commission shops. The first co-operative supply and commission shop was registered at Ganganagar, on 7th January 1939, under the Bikaner Co-operative

societies Act 1920. In 1945 two more such shops were registered in the district under the same Act. During the year 1965-66, 16 marketing societies were functioning in the district, which transacted business worth Rs. 55,12,619 and earned profit amounting to Rs. 1,65,115.

FARMING SOCIETIES—These societies provide medium and short-te m credit for purchasing modern agricultural implements, improved seeds and manures etc. 124 farming societies with 1,788 members were functioning in the district in the year 1965-66.

CONSUMERS' CO-OPERATIVE STORES—The first consumers' co-operative store in Ganganagar district was started at Bhadra on 3.3.1949. By the close of the Second Five Year Plan there were 10 consumers' co-operative stores. Their number increased to 32 by the end of the year 1965-66. They transacted purchases and sales worth Rs. 88,49,062 and Rs. 81,81,372 respectively and earned profit of Rs. 48,405 during the year 1965-66.

INDUSTRIAL SOCIETIES—In Ganganagar district there were 22 and 82 industrial co-operative societies at the end of the First and the Second Five Year Plans respectively. In 1965-66, their number was 68 with a membership of 1,392. These societies export finished products to places within and outside Rajasthan and make combined purchases of raw materials, simultaneously safeguarding the interest of small traders and artisans.

The primary societies prepare yearly financial statements about each member furnishing, among others, the particulars regarding cultivated area, area of land owned and area of land taken on lease, agricultural produce sold through co-operative societies in the preceding year, maximum credit limit, amount of loan asked for and value of shares held. Loans to be sanctioned are determined by the over all financial position of the members and the availability of funds. Though care is taken to ensure recovery of loans before their sanction and disbursement but even then arrears have accumulated.

The administrative supervision over the co-operative societies in the district is at present done by two Assistant Registrars, Co-operative Societies who are assisted by two audit assistants and financial inspectors each and 49 inspectors, 31 assistant inspectors and ministerial staff.

Under the Rajasthan Co-operative Societies Act II, 1953, audit of accounts is the statutory duty of the Registrar, Co-operative Societies. The accounts of the primary co-operative credit societies are audited by the

auditors and those of the central societies and major primary institutions by approved chartered accountants, with the prior sanction of the Registrar.

FINANCIAL CORPORATIONS—The Rajasthan Financial Corporation, headquartered at Jaipur, was established with the object of providing medium and long-term finance to the industries. Its working, however, influences short-term money market also directly or indirectly.

Upto 31.10.1966, 17 applications for loans of Rs. 36,85,000 were received by the Corporation from eight types of industries out of which loans amounting to Rs. 17,85,000 were sanctioned to seven applicants and loans amounting to Rs. 2,06,700 were advanced to three applicants.

FACTORIES AND MERCHANTS—The factories, specially the Ganganagar Sugar Mills and the Cotton Ginning and Pressing Mills provide financial accommodation to the growers of sugarcane and cotton.

GOVERNMENT—*Taccavi* and other loans are made available by the Government through Revenue, Agriculture, Industries and Development Departments etc. The extent of *Taccavi* advances made in Ganganagar district during 1964-65 and 1965-66 were as follows[1]:

(Amount in Rs.)

Purpose	1964-65		1965-66	
	Demand	Supply	Demand	Supply
1. Purchase of tractors	1,60,000	1,40,000	49,500	49,500
2. *Jagirdar* rehabilitation	30,000	28,800	40,000	13,000
3. Famine relief	4,00,000	3,12,585	—	—
4. Flood relief	1,31,000	27,900	—	—
5. Bullocks purchase	—	—	84,400	74,800
6. Relief to goldsmiths	—	—	1,22,000	1,22,000
7. Others	28,500	14,250	—	—
Total	7,49,500	5,23,535	2,95,900	2,59,300

The District Industries Officer, Ganganagar advanced a loan of Rs. 3,000 to Iron and Trunk Industries during the year 1965-66.

1. Source : Collectorate, Ganganagar.

GENERAL AND LIFE INSURANCE

The following major Insurance Companies were undertaking General and Life Insurance business in the erstwhile State of Bikaner :

1. Oriental Government Security Life Assurance Co. Ltd.,
2. Empire of India Life Insurance Co. Ltd.,
3. Lakshmi Insurance Co. Ltd.,
4. Agarwal Assurance Society Ltd.,
5. Bombay Mutual Life Assurance Society Ltd.,
6. National Insurance Co. Ltd.,
7. The Sunlight of India Insurance Co. Ltd.,
8. Hindustan Co-operative Insurance Society Ltd.,
9. Asia Insurance Society Ltd.,
10. The Bharat Insurance Co. Ltd.

Before the formation of the Life Insurance Corporation of India, life insurance business was done both by foreign and Indian insurance companies. At present, Ganganagar district forms a part of Ajmer Division of Northern Zone of the Life Insurance Corporation and has three branch offices of the Corporation located at Ganganagar, Raisinghnagar and Hanumangarh. The total business of all these branches was of the order of Rs. 2,00,26,200 during the year 1965-66, as per details given below[1] :

Branch Office	Date of establishment	Business during 1965-66	
		Policies (No.)	Amount (Rs.)
1. Ganganagar	8.7.1958	1417	82,32,000
2. Hanumangarh	20.5.1959	1415	84,05,000
3. Raisinghnagar	2.4.1964	752	33,89,000
Total		3584	2,00,26,000

General insurance business continues to be in the private sector. (The management of general insurance companies has since been taken over by the Government). Most of the companies which transacted all sort of insurance business including life insurance before the latter's nationalisation have now confined themselves to general insurance business

1. Source : Office of the Divisional Manager, Life Insurance Corporation of India, Ajmer.

such as fire, marine, accident, workmen's compensation, machinery erection, aviation and miscellaneous mishaps (burglary, theft etc.). Three insurance companies viz., The Ruby General Insurance Co. Ltd., the General Assurance Society Ltd. and the New Great Insurance Co. Ltd. earned a premium of Rs. 5,76,170 and paid claims worth Rs. 1,80,140 during the year 1965 in Ganganagar district. The Life Insurance Corporation of India also grants loans for different purposes at varying rates of interest.

State Insurance

With a view to helping the dependents of the employees who suffered a premature death and to encourage a habit of thrift among the State employees, the State Life Insurance Scheme was introduced as far back as 1927-28 in the erstwhile State of Bikaner by Maharaja Ganga Singh. As the scheme was not calculated to earn any profit, the rates of premium were appreciably lower than those of private companies of standing. The amount of premium paid to the State Insurance Department was exempted from all taxes and arrangements were also made to enable the policy holders to draw short-term loans in time of need. The insurance policies were made inalienable and could not be attached in the execution of decrees of civil courts or in the realisation of the State claims. The scheme was meant to be compulsory but was kept optional initially for two years and then for another year to enable the employees to realise the benefits of the measure. Subsequently, it was thrown open to the general public also. On the formation of Rajasthan, the scope of Compulsory State Insurance Scheme, in force in erstwhile Jaipur State was extended in 1953 to cover all the government employees. The Scheme was extended in three phases. In the first phase, it covered all permanent employees of the State drawing a pay of Rs. 51 or above. In the second, it was extended to all the permanent employees of the State drawing a pay above Rs. 35 and in the third phase it was extended to all the permanent employees of the State drawing pay below Rs. 35 per month. The first, second and third phases were implemented in Ganganagar district on 1st February 1954, 1st June, 1955 and 1st September 1956 respectively. The scheme was made applicable to the employees of the Panchayat Samitis and the Zila Parishads with effect from 2nd October, 1959 but was withdrawn later on, from 1st February 1962 and only those employees were covered who had come under its purview prior to 1962. In 1960, the scheme was also made applicable to all the temporary government employees who had put in a minimum of one year's service, except in case of those who were not likely to be made permanent in the opinion of their drawing officers. In 1965, the scheme was made applicable to all the temporary state

employees who had put in six months of service. Two types of insurance policies are issued, one under the endowment plan and the other under the whole life plan.

During the year 1965-66, there were 11,764 policies in force in Ganganagar district and Rs. 7,38,009 were received as premia. Number of claims paid due to death and maturity, were 16 and 76 respectively, involving Rs. 18,257 and Rs. 49,474 respectively, during the year 1965-66.

NATIONAL SAVINGS

As already stated, State Savings Bank was started in the year 1927-28 in the erstwhile State of Bikaner. It offered better rates of interest for investment than the Postal Savings Bank. A branch of this bank was opened at Ganganagar in the year 1929-30. A small savings scheme was organised in May 1944 by the Revenue Commissioner, Ganganagar and a whole-time officer was appointed in March, 1947 to look after the scheme. Steps were taken to augment the sale of National Savings Certificates, as an integral part of war efforts. The State employees, drawing salaries of Rs. 125 per month or above, were required to subscribe to the Government of India Defence Loan Bonds or Defence Savings or National Saving Bonds with effect from 1st October, 1943. The following scales of subscription were laid down[1] :

Salary Range (Rs.)	Subscription (Percentage)
125–325	5
326–625	7
626–1000	10
1001–1500	12
Over 1500	15

After the formation of Rajasthan, a District Organiser of National Savings was appointed at Ganganagar in December, 1952, who continued to function till 1961, when one more District Organiser was posted at Hanumangarh to cope with the increased work. The office of the Assistant Regional Director, National Savings was shifted from Bikaner to Ganganagar in 1962 and continued there upto March, 1966. Collections

1. *Report on the Administration of the Bikaner State*, 1942–43, p. 34

under various schemes during the year 1965-66 in Ganganagar district were as under[1] :

Particulars	Amount (Rs.) Gross	Net
1. Postal Certificates	7,13,000	(-) 38,000
2. Post Office Savings Bank Accounts	25,32,000	10,78,000
3. Cumulative Time Deposit Accounts	1,96,000	1,42,000
	34,41,000	11,82,000

CURRENCY AND COINAGE

According to William Wilfrid Webb[2], the Bikaner mint was opened by Maharaja Gaj Singh, who obtained a *Sanad* from Emperor Alamgir II (Aziz-ud-din Muhammad) (1754–59 A. D.) permitting him to mint currency. It was claimed by the Bikaner State officials that this privilege was granted in *Vikrama Samvat* 1809 (1753 A.D.) but no record is available to substantiate this claim. On the other hand, it appears that the coins were struck for the first time only after the year 1759, the first year of Shah Alam's reign. From the time of Maharaja Gajsingh (1745–88 A.D.) all coins of the State were struck in the name of Shah Alam, till 1859 A.D. when the name of the queen of England was first cut on the die. Each ruler adopted a special device for his coins and the coins could be easily recognised as relating to the period of a particular ruler by these symbolic devices. These were :

1. For Gaj Singh a *Pataka* or *Dhvaja* or flag or standard of Shiva,
2. For Surut Singh a *Trisul* or trident,
3. For Ratan Singh a *Kirnia* or turban-star,
4. For Sardar Singh a *Chhata* or umbrella,
5. For Dungar Singh a *Chauri* or fly-whisk, and
6. For Ganga Singh a *Morchhal* or peacock-feather fly-whisk.

The mint was never located outside the capital town of Bikaner. According to Mr. Webb, "The silver coins are well struck and are among

1. Source : Office of the Regional Director, National Savings (Govt. of India), Jaipur.
2. Webb, W. W., *The Currencies of the Hindu States of Rajputana*, 1893, p. 56.

the best in Rajputana. Both *Nazr* and ordinary rupees were issued, the *Nazr* coins are especially fine, are and generally of full weight. Before the time of Sirdar Singh no smaller silver coin than the rupee was issued. Sirdar and Dungar Singh coined pieces of the value of a half, a quarter, and an eighth of a rupee. During the present reign no pieces of the value of an eighth of a rupee were coined until the year 1890"[1].

In Prinsep's Useful Tables, the weight of the Bikaner rupee was given as 174 grains and its pure content stated as 167.47 grains of silver. The value of 100 rupees was said to be 101.5 Imperial rupees. The full weight of the rupee was 178 grains. None of the well-stamped coins weighed less than 174 grains, though, as a rule, it varied from 175 to 177 grains. The value of 100 Bikaner rupees fluctuated from 101 to 103 Imperial rupees. The old coins were said to contain 1¼ per cent of alloy. The coins of both the metals were known by the name of Maharaja, with the word *Shahi*, and the value of the coin added to it.

The rulers did not circulate coins, but merely kept the die. When the *Sahukars* or merchants or other people wished to have coins manufactured, they brought their metal after first getting it purified to the *Durbar* mint. For every rupee, 10¼ *Mashas* of silver had to be provided and as the rupee weighted only 10 *Mashas*, there was a saving of 25 *Mashas* of silver on every 100 rupees. The 25 *Mashas* worth Rs. 2.8 was expended for wastage in melting, custom duty, cleaning charges and assaying weighing charges etc.

On 16th February, 1893, an agreement was concluded between the ruler of Bikaner and the Government of India, under the Native Coinage Act, Act No. IX of 1876, and in accordance therewith 10 lakhs of Bikaner rupees were made legal tender after being recoined at Bombay and in 1895 copper coins were struck for the State at the Calcutta mint and put into circulation. Under this agreement, the *Durbar*, among other things, abstained from coining silver and copper coins in his own mint for a period of 30 years.

The details of silver coins struck in Bikaner mint during various years were as follows:

1. Webb, W.W., *The Currencies of the Hindu States of Rajputana*, 1893, p. 57.

(Number)

Samvat Year	Rupee Coins	8-Anna Pieces	4-Anna Pieces	2-Anna Pieces
1943	44,342	—	—	—
1944	60,798	3,996	—	—
1945	29,602	—	—	—
1946	1,71,740	3,774	588	—
1947	24,350	—	21,020	184

There was no mint at Ganganagar and the coins struck in the *Durbar* mint at Bikaner were in circulation in Ganganagar also. At present decimal coins are in circulation, introduced in the district in 1957, and made compulsory in 1960.

TRADE AND COMMERCE

Ganganagar after the advent of the Gang Canal has become surplus district of the State, as regards wheat, gram, oilseeds, sugarcane and cotton. The production figures for the year 1965-66 for wheat, gram and sugarcane were 58,453 tonnes, 73,762 tonnes and 1,22,901 tonnes respectively. No precise figures of imports and exports into and from the district are available. Agriculture being the mainstay of the district, trade and commerce is relatively less developed and only 4.19 per cent (17,025 persons) of its working population derived its livelihood from this occupation in 1961.

Markets and Imports and Exports

According to the *Assessment Report of the First Regular Settlement of Gang Canal Colony* in Ganganagar Division of the erstwhile Bikaner State, the total number of *Kothas* in various colony *mandis* was about 2,000 with a storage capacity of 20,00,000 maunds.

In 1946, *Kachhi* and *Pakki mandis* were functioning at the following places[1]:

Tahsil	*Pakki mandis*	*Kachhi mandis*
1. Ganganagar	1. Ganganagar 2. Hindumalkot	
2. Karanpur	1. Karanpur 2. Kesrisinghpur	

1. Behari Lal, Rai Sahib, *Assessment Report of the First Regular Settlement of Gang Canal Colony*, 1946.

1	2	3
3. Padampur	1. Gajsinghpur	1. Padampur
4. Raisinghnagar	1. Raisinghnagar	
5. Anupgarh	1. Anupgarh	
	2. Bijaynagar	1. Jaitsar

Exports from the district during 1946, as per the records of the then Custom Department were as under[1]:

(Quintals)

Commodity	Quantity
1. Wheat	1,89,419
2. Barley	22,681
3. Gram	2,14,605
4. *Bajra*	34,370
5. *Jowar*	5,093
6. *Guar*	70,840
7. Pulses	9,215
8. Cotton	10,313
9. Cotton seed	26,062
10. *Sarson* (Mustard)	97,340
11. *Taramira*	17,253
12. *Gur Sakkar*	50,320

The important commodities at present imported into and exported from the district along with the places of imports and exports are given in Appendix I. The sales and purchases of agricultural commodities in the district are transacted at different trade centres and *mandis* spread throughout its length and breadth. In addition to these, special markets are also held once or twice a week. The main *mandis* of the Gang Canal area are Ganganagar, Karanpur, Raisinghnagar, Bijaynagar, Gajsinghpur, Hindumalkot, Kesrisinghpur and Anupgarh.

Three *mandis* viz. Hanumangarh, Sadulshahr and Sangaria are functioning in the *Barani* area of the district.

1. Behari Lal, Rai Sahib, *Assessment Report of the First Regular Settlement of Gang Canal Colony*, 1946.

The following are the Bhakhra *mandis*:

I Class	II Class	III Class
1. Hanumangarh	1. Bhadra	1. Hanumangarh Fort
	2. Nohar	2. Bhawa
	3. Suratgarh	3. Ujalbas
	4. Sangaria	4. Tibi
	5. Sadulshahr	5. Manaksar
	6. Pilibanga	6. Dholipal
	7. Talwara Jhil	7. Dabli
		8. Banwali
		9. Khinaniyan
		10. Jhansal
		11. Pephana
		12. Hitrana
		13. Paka Bhadwan

With marketing are connected the problems relating to buying, selling, financing, transportation, standardisation and market research etc. Since Independence, efforts are being made to regulate them with a view to protecting the producer-farmer from exploitation and, therefore, the following regulated markets have been set up in Ganganagar district from the dates mentioned against each[1]:

Regulated markets	Date of regulation
1. Karanpur	1964
2. Ganganagar	1968
3. Kesrisinghpur	1967
4. Gajsinghpur	1966
5. Hanumangarh	1965
6. Sadulshahr	1965
7. Padampur	1968
8. Raisinghnagar	1965
9. Bijaynagar	1967
10. Pilibanga	1966
11. Sangaria	1968
12. Nohar	1965
13. Bhadra	1967

1. Source: Office of the Marketing Officer, Agriculture Department, Rajasthan, Jaipur.

In addition to the above regulated markets, sub-markets or yards and enclosures, buildings or localities declared as sub-markets or yards have been constructed at Anupgarh, Jetsar, Suratgarh, Binjwalia, Rawatsar, Ridmalsar, Dabli Molviwala and Hanumangarh town.

Karanpur was the first market in Ganganagar district regulated on 16th September, 1964. At present, there are 13 regulated markets in the district and for each such market area there is one principal market yard and one or more sub-market yards. The State Government has established a market committee consisting of 5 members for every market area. The market committee elects one of its members to be its chairman and another member to be its vice-chairman. It may appoint one or more of its members to form a sub-committee or a joint committee. All the members, officer-bearers and employees of the market committees, sub-committees and joint committees are deemed to be public servants. The main function of these committees is to ensure satisfactory operation of sales, weighment and payment in accordance with the provisions of the Rajasthan Agricultural Produce Marketing Act, 1961.

The Ganganagar *mandi* is a centrally situated and among the most thriving *mandis* of Northern India, attracting agricultural produce even from far beyond the State. Huge stocks of agricultural commodities and other merchandise are always available in it not only for local consumption but also for meeting the demands of other parts of the State and the country. There is also a permanent *bazar* for transacting retail purchase and sale of all commodities. The ownership of the *mandi* is vested in the Municipal Board, Ganganagar and its market yard is rectangular in shape and is situated to the south of the railway station. In the yard, there are in all 112 large and 10 small-sized shops. In the heart of the market, there is a *Tahebazari* having 200 shops. The important functionaries are the commission agents, weighmen, retailers and brokers for the proper disposal of produce on sale. There is a steady flow of wheat, barley, gram, *sarson*, *taramira* and cotton in the *mandi*.

Karanpur *mandi* is fed by agricultural produce of 119 villages. The market is well connected with all important markets by rail and road. The market yard is rectangular in shape. It is situated towards the west of the railway station. The ownership of the market is vested in the municipality but shops belong to the traders. Business in commodities such as wheat, barley, gram, *sarson*, *taramira* and cotton is done by auctions or negotiations and they are exported to Bikaner, Churu, Didwana, Barmer, Bombay, Poona, Howrah, Solan, Hathras, Kanpur

and Aligarh. There are about 650 godowns with a total storage capacity of 2,00,000 bags.

Raisinghnagar market is located on the metre gauge railway line. The market is of primary type having its feeding limit extending to 211 villages and consists of a rectangular plot having 96 shops owned by the municipality, besides 300 shops in *Tahebazari*. Wheat, gram *sarson*, and cotton are exported from this market to Bikaner, Nagaur, Bombay, Mysore, Madras, Tuticorin, Agra, Aligarh and Hathras. There are about 500 godowns with a total storage capacity of 1,84,900 quintals.

Padampur market is located towards the south-west of Ganganagar, having its feeding area extending over 70 villages and is of a primary type. It has no rail connection with any of the markets of the district. The rectangular shaped yard is owned by the Panchayat Samiti, Padampur, but the shops belong to the traders.

Jaitsar, which is an assembling market, is situated on Hanumangarh-Suratgarh metre gauge railway line. The market yard is rectangular in shape. Barley, gram, *Sarson*, cotton, rice and *Guar* are exported from this market to Bikaner, Churu, Coimbatore, Delhi, Kanpur, Phalodi etc.

Anupgarh is located on the metre gauge railway line to the south-west of Ganganagar, with Bijaynagar as the only adjoining market and is connected with Jaitsar by a metalled road. The rectangular market yard has about 100 shops. *Gur*, wheat, rice and *Sajji* are exported to Bikaner, Calcutta, Jaisalmer, Jodhpur, Amritsar etc. from this market.

Bijaynagar market is located towards the south-west of Ganganagar. The market is of a primary type and its feeding limits extend to 50 villages of Panchayat Samiti, Raisinghnagar. The rectangular market yard has 60 shops in it, besides 200 *Tahebazari* shops. Wheat, barley, gram, *Sarson*, *taramira*, cotton and rice are exported to Bikaner, Didwana, Poona, Carnac Bridge, Chitpur (West-Bengal), Delhi, Saharanpur, Agra and the Punjab.

Pilibangan, located towards the south-west of Ganganagar, is on the metre gauge railway line connecting Hanumangarh and Suratgarh. The market is of a primary type, fed by 24 villages of Panchayat Samiti, Suratgarh. The market yard, rectangular in shape, has 72 large sized and 50 *Tahebazari* shops. Wheat, gram, barley, *Sarson*, *taramira* and *Guar* are exported from this market to Bangalore, Tuticorin, Hyderabad, Cochin, Tejpur, Hathras, Solan, Aligarh, Rewari etc.

Nohar is located to the south-east of Ganganagar, on the metre gauge railway line between Hanumangarh and Sadulpur. The market is of primary as well as secondary type, having its feeding limits extending to 165 villages. Important commodities traded are gram, *Gaur*, *bajra*, *moth*, *moong*, *taramira*, *sarson* and *til*. The shops are scattered all over the town-market unsystematically. A new market place for this *mandi* has been planned for which land has been auctioned by the Bhakhra *Mandi* Development Board.

Hanumangarh is a railway junction, well connected by road also with all the important trade centres of the district. A big *mandi* is being constructed here by the Bhakhra *Mandi* Development Board.

Sadulshahr, Gajsinghpur and Sangaria are other important markets of the district which are located on the railway routes and are as well connected by road.

Fairs

The fairs in Ganganagar, as anywhere else, are either mythological in origin or are celebrated to commemorate the exploits of some mediaeval heroes. Gogaji fair, which is held in village Gogameri in tahsil Nohar, is the biggest fair of Ganganagar district. The main fair is celebrated from the 9th day of dark half of *Bhadrapad* or Goga *Navmi* to the 11th of the same month, in the memory of Gogaji. The traders from Nohar, Bhadra, Hanumangarh and Ganganagar assemble here to sell food stuffs, foodgrains, utensils, saddles for camels and general merchandise including buttons, soaps, garlands and other petty items. Their income ranges from Rs. 8 to 10 per day each. A considerable amount of trade in camels and cattle is transacted at this fair. The other fairs held in the district are not of much importance from the point of view of trade, as only small transactions, mostly of cattle take place in them.

In 1931, the first big cattle fair was organised at Ganganagar, by the then State of Bikaner, with the object of providing facilities to the farmers for exchanging their cattle and widening their mental horizon by means of lectures, shows, exhibitions, sports etc. A large number of farmers participated in it.

Co-operation in Trade

As stated earlier, co-operative marketing was introduced in Ganganagar district as early as 1938, when a co-operative supply and commission shop was established at Ganganagar. Two more such shops were established

in 1945. During the Second Five Year Plan, co-operative marketing received official support and two marketing societies were set up in 1958-59. Since then the co-operative marketing societies have been making a constant headway. The consumers' co-operative movement gained momentum with the initiation of centrally sponsored scheme for development of consumers' co-operative stores.

The position of co-operative societies in the sphere of trade during 1965-66 is given below[1]:

Particulars	Unit	Marketing societies	Consumers' co-operative societies
1. Societies	No.	16	32
2. Members	No.	3,811	7,394
3. Share capital	Rs.	5,40,454	2,57,046
4. Working capital	Rs.	21,03,152	7,77,483
5. Purchases (Business)	Rs.	45,82,619	88,49,062
6. Sales (distribution)	Rs.	46,83,023	81,81,372
7. Profits	Rs.	1,65,115	48,405

Retail Markets

An accurate and exhaustive description of the retail trade is not available due to lack of data in this regard but it can be safely mentioned that retail trade, as elsewhere, is carried on by a large number of shops located in the heart of the towns and other places which are easily accessible. These shops provide a link between the wholesalers and the consumers. The retail shop-keepers maintain small stocks of various commodities and do not have direct relations with the producers or manufacturers. But some manufacturers such as the Bata Shoe Co., the Delhi Cloth Mills Ltd., and others have now started their own retail shops in various towns of the district.

Several establishments like those of tailoring, haircutting, laundries, bakeries, betel, hotels and restaurants, cycle-repairing and motor-repairing etc. are also plying their trade in the towns of the district.

Merchants' and Consumers' Associations

Merchants' and Consumers' Associations have not made much headway in this district. The formation of such associations help further develop the trade and commerce on scientific lines. Some of the trade associations formed in the district till 31.12.1966 were:

1. Source: Office of the Assistant Registrar, Co-operative Societies, Ganganagar.

Name	Location
1. *Kraya Vikraya* Co-operative Samiti	Gajsinghpur
2. *Kraya Vikraya* Sahkari Samiti	Bhadra
3. Grain Merchants' Association	Nohar
4. Traders' Union	Karanpur
5. Grain Merchants' Association	Ganganagar
6. Sweetmeat sellers Association	Ganganagar
7. *Tehbazari* Association	Sangaria
8. Merchants' Committee	Sangaria
9. *Vyapar Mandal*	Raisinghnagar
10. *Kirarna* Association	Raisinghnagar
11. *Manihari* Association	Raisinghnagar

State Trading

There has been no state trading in the strict sense. During the Second World War, abnormal rise in the prices of essential commodities (rice, wheat, sugar, kerosene oil, petrol and cloth etc.) due to scarcity conditions, forced the State authorities to control their supply and consumption. The Inspector General of Customs and Excise, Bikaner was also the Controller of Prices during the years 1939-40 to 1941-42. The Foodgrains Control Order, 1942 was promulgated on 25.7.1942, and it made it incumbent on the wholesale dealers to obtain licenses before engaging in any undertaking which involved purchase and sale or storage of large quantities of foodgrains viz. wheat and wheat products, rice and paddy, maize, *Jowar*, *bajra*, grain and *moth*. The Foodgrains Futures and Options Prohibition Order, 1942, was also issued under which all future and option transactions in wheat, gram, *bajra*, *moth* and *Jowar* were stopped. A post of Development Commissioner was created, who was made in-charge of all commercial industries, co-operative societies, fairs, exhibitions and marketing. The office of the Controller of Prices was separated and a post of Director of Civil Supplies was created in June, 1943. A Central Purchasing Agency was set up at Ganganagar for regulating the movement of foodgrains within the State and purchasing any surplus for being supplied to the Government of India and other administrations. With a view to having proper control over the prices of cotton cloth and yarn, the Cotton Cloth and Yarn (Control) Order, 1943, was promulgated in the Bikaner State, on the lines of the order enforced in British India and the Director

of Supplies was appointed as the Textile Commissioner. The Bleaching Powder and Chlorine Control Order, issued by the Government of India was, *mutatis mutandis*, brought into effect in the Bikaner State (of which Ganganagar was a division) on 17.7.1943. A Textile Merchants Committee was formed for procurement and distribution of cloth allotted to the State by the Textile Commissioner, Bombay. Depots were opened and quotas were fixed for each town and tahsil and deliveries were made accordingly. The Woollen Goods Control Order, 1945 was promulgated in January, 1945.

Even after Independence and formation of Rajasthan some sort of control was maintained over the distribution of a few essential commodities. In 1966, there were 40 fair price shops operating in the district.

WEIGHTS AND MEASURES

The Bikaner State Weights and Measures Act, 1934 prescribed a uniform system of weights and measures to check fraudulent practices. According to this Act, standard of weight for gold and silver was to be called gold and silver *tola* respectively and was to be a weight of metal equal to 12 standard *Mashas* of British India. Standard yard of British India was called a standard yard, 1/3rd part of standard yard a standard foot and its 1/36th a standard inch. Primary standard of weight, except for gold and silver, was a *seer* and comprised of a weight of metal equal to the standard *seer* of British India. For measures of capacity, a measure containing one such *seer* of water at its maximum density, weighed in vacuum was adopted. Every standard weight and measure was to bear a State stamp under the authority of the Government.

Use of un-stamped or unregistered weights or measures was punishable with fine upto Rs. 50 for first offence and Rs 100 for every subsequent offence. A standard model, approved by Government for determining weights and measures, was kept in the offices of the Tahsildars or such other places.

Various types of weights and measures were in vogue in the 22 princely states which integrated into Rajasthan. The condition of weights and measures in Rajasthan, therefore, had been more chaotic and confusing than that prevailing in the provinces of former British India which had enjoyed a uniform pattern of administration for centuries. After the formation of Rajasthan, however, the Government passed the Rajasthan Weights and Measures Act, 1954, which was brought into force from September, 1955. Under this Act, the weights and measures were standardised and the *seer*, maund, etc. became uniform in the whole of Rajasthan.

On the lines of the Union Standards of Weights and Measures Act, 1956, the State of Rajasthan passed the Rajasthan Weights and Measures (Enforcement) Act, 1958 and introduced the metric system according to a phased programme. Details of introduction of the metric system in Ganganagar district are given below :

Particulars	Date of introduction	Date of compulsory use
1. Weights	1.4.1960	1.4.1962
2. Measures		
(i) Capacity	1.10.1961	1.10.1962
(ii) Linear	1.10.1961	1.10.1962

In the beginning of the Third Five Year Plan, a fully equipped laboratory was established at Ganganagar and extensive publicity was organised in the district to acquaint the public with the new system of weights and measures. The implementation of Standards of Weights and Measures Act is the responsibility of the District Industries Officer who is assisted by the Weights and Measures Inspector. The old weights and measures have now been replaced by metric weights and measures.

APPENDIX I

Imports and Exports of Ganganagar District.

S. No.	Commodities	Where exported to	Where from imported	Places of Production of exports
1	2	3	4	5
1.	Wheat	Bombay, Ahmedabad, Jaipur & Bikaner	—	Gangangar, Padampur, Hanumangarh.
2.	Gram	Bengal, Madras, Banglore, Delhi, Jaipur, Mysore	—	Suratgarh, Hanumangarh Nohar, Bhadra,
3.	Cotton	Bombay, Pali, Madras	—	Ganganagar, Karanpur, Padampur, Raisinghnagar, Hanumangarh
4.	Sugarcane	Other districts	—	Ganganagar. Padampur, Anupgarh, Hanumangarh
5.	Sugar	Urban centres of Rajasthan	—	Ganganagar
6.	Cotton textiles, yarn & silk	Urban centres of Rajasthan	Ahmedabad Bombay	Ganganagar
7.	Woollen textiles	Urban centres of Rajasthan	Punjab, Bikaner	—
8.	Wool	Nagaur	Punjab, Delhi	Nohar, Bhadra
9.	Vegetable Oils	—	Bikaner, Jaipur, Delhi, Punjab	—

1	2	3	4	5
10.	Hides & Skins	Adjoining Areas	—	Southern areas of the district
11.	Spirits & Wines	Urban centres of Rajsthan	— —	Ganganagar
12.	Petroleum products	—	Bikaner, Jaipur	—
13.	Plastics & Plastic goods	—	Punjab, Delhi	—
14.	Iron & Steel small structures	— —	Jaipur, Punjab	—
15.	Agricultural Implements	—	Jaipur, Punjab, Delhi	—
16.	Gypsum	Sindri	—	Suratgarh, Anupgarh, Nohar
17.	Bamboos	—	Pali, Sirohi	—
18.	Timber	Jaipur, Bikaner, Jodhpur, Punjab.	—	Ganganagar, Padampur, Karanpur, Raisinghnagar,
19.	Firewood	Adjoining Areas	—	Hanumangarh
20.	Charooal	Adjoining Areas	—	Hanumangarh
21.	Cattle	Bikaner	—	Anupgarh, Nohar
22.	Camels	Nagaur, Churu	—	Suratgarh, Rawatsar
23.	Eggs and Poultry	Delhi, Bikaner, Punjab.	—	Hanumangarh, Ganganagar.
24.	Fish	Bikaner	—	Suratgarh

1	2	3	4	5
25.	Irrigation machinery	—	Punjab, Bharatpur, Delhi	—
26.	Cement	—	Sawai Madhopur, Lakheri	—
27.	Tractors	—	Punjab, Delhi	—
28.	Electrical & Diesel Motors, Electric and water meters	—	Jaipur, Punjab	—
29.	Slack coal, Steam coal	—	Bengal, Bihar	—
30.	Fertilisers	—	Sindri	—
31.	Pesticides & Insecticides	—	Delhi, Udaipur, Alwar.	—
32.	Leather & leather goods	—	Delhi	—
33.	Toilet articles	—	Delhi, Punjab	—
34.	Salt	—	Sambhar, Didwana	—
35.	Medicines & Drugs	—	Delhi, Punjab	—
36.	Tea, Coffee.	—	Delhi, Assam	—

CHAPTER VII

COMMUNICATIONS

OLD TIME ROUTES

There is no authentic and detailed information about old time routes in this area. But on the basis of fragmentary available information, it can be said that the state of transport in Ganganagar district, as in most other parts of Rajasthan, was far from satisfactory. Even after the advent of the Gang Canal, the position in this respect has not much improved as the progress in this regard been rather slow. Before the introduction of motor transport, camels, bullock-carts and pack donkeys were the principal vehicles of transport.

In olden times, the area, as it was in close proximity to the prosperous territory of Punjab, fell on the route to Delhi trode by traders and pilgrims, who did not indulge in any direct economic activity in it. Herman Goetz has described some routes passing through the Thar Desert[1]. According to him, till the founding of Bikaner State, life in the Thar Desert remained at the semi-nomadic level, but soon thereafter, Hindu traders and missionaries began to penetrate this land. Later on, it was the scene of local wars, serving largely as a buffer state through which trade between India and the West passed, especially after communications in the Punjab had been interrupted by successive full-scale campaigns and endless smaller frontier disputes.

Several old trade routes crossed the desert. From Sakambhari (Sambhar), the centre of Chahmana power and Ajmer a northern route passed via Churu and Nohar (the Kanuvihar of the Chachnama) to Sirsa and Bhatinda in the Punjab. Another north-western road ran via Dronpur-Chapar (near Sujangarh) to Taranagar (near Sardarshahr), Pallu (Prahladakupa of an inscription of Arnoraja), Bhatner (now Hanumangarh) or the middle Ghaggar Valley and Depalpur. A third north-western route crossed through Didwana, Morkhana (near Deshnoke), Ajiyapur (Janglu), Kodamdesar or Kolayat to Pugal and Multan. Other routes further south crossed from Mandor via Osian and Phalodi to Derawar, from

1. Goetz, Herman, *the Art and Architecture of Bikaner State*, 1950, p. 29.

Abu, Jalor and Bhinmal to Kiradu (Barmer) and Jaisalmer or Brahmanabad (Mansura). The most frequented of the northern routes were probably those from Ajmer to Depalpur and to Multan. The latter especially acquired some importance by the late 9th and early 10th centuries, when the famous Sun *(Aditya)* temple of Multan attracted many pilgrims.[1]

The routes, which seemed to exist at the beginning of the present century were (a) an unmetalled road route from Bahawalpur (now in Pakistan) to Sirsa passed through Anupgarh and Bhatner (now called Hanumangarh). The last two places, though small villages, were at a distance of 146·9 km. (91 miles and 2 furlongs) and 264·5 km. (164 miles and 3 furlongs) respectively from Bahawalpur; (b) Bikaner to Sirsa route, 273·2 km. (169 miles and 6 furlongs) in length, also touched Bhatner at a distance of 202 km. (125 miles, 4 furlongs) from Bikaner; (c) Route between Bikaner and Sirsa covering a distance of 253·7 km. (157 miles, 5 furlongs) passed through Nohar. The later two routes with sandy tracks were fair-weather roads. Captain P. W. Powlett also mentioned the Bikaner-Sirsa route passing via Nohar covering a distance of about 57·9 km. from Bikaner, as the principal route of the princely State.[2]

With the development of agriculture in the area, the need for improving communications was increasingly felt. The sandy nature of the soil, the frequency of dust-storms and high winds, however, made it difficult to keep large lengths of roads open to traffic throughout the year and hampered the road development programmes.

To cater to the marketing needs of the agriculturists, the erstwhile State Government took up the work of construction of pathways and roads, connecting tahsil headquarters with market towns. Thirty district roads were approved for construction in the Ganganagar area in 1929-30. About 1,100 village fair-weather roads were constructed in Ganganagar and Karanpur tahsils and an equal number in Raisinghnagar and Padampur tahsils, and by 1931-32 there were, in all, about 3,800 village roads in the Gang Canal area alone but they were suitable only for bullock-carts. Sometimes overgrown bushes made even bullock (cart) traffic difficult. A few municipalities, like Hanumangarh, Ganganagar and Karanpur, undertook the construction of metalled roads which connected the respective towns with the railway stations. A few bridges were also constructed by the State Irrigation Department. Roads along the Canal banks were also constructed during the famine of 1930-40. The Post-War

1. Goetz, Herman, *the Art and Architecture of Bikaner State*, p. 31
2. Powlett, P. W., *Gazetteer of Bikaner State*, p. 97.

Development Scheme for the State of Bikaner included a proposal for converting important roads into metalled ones, but this could not materialise before the State's integration with Rajasthan.

With the coming in of fast moving vehicles, the situation changed and more ambitious road building programme was initiated. The bullock and camel carts, however, are still used as a means of conveyance to and from rural areas to agricultural *mandis* and towns and for distribution of consumers' goods needed in rural areas.

ROADS AND ROAD TRANSPORT

Roads

The road length on 31st March 1966, in the district, was 1,324 km. (822.7 miles). These roads are categorised as State Highways, Major District Roads, Other District Roads and Village Roads. They fall under four surface types of bitumen treated, water bound, gravelled and fair-weather roads. The following table gives the category-wise road lengths for the last ten years[1]:

(Kilometres)

Year	Painted or bituminised	Metalled	Gravelled	Fair-weather	Total
1956–57	95	74	—	74	243
1957–58	21	180	18	74	293
1958–59	282	101	29	77	489
1959–60	372	34	19	82	507
1960–61	431	37	18	200	686
1961–62	501	163	—	120	784
1962–63	694	171	—	313	1,178
1963–64	832	140	—	256	1,228
1964–65	927	93	—	240	1,260
1965–66	1,004	64	2	254	1,324

No concrete roads exist in the district, though about 4.75 per cent of the roads have metalled surface and 75.9 per cent of them are bitumen treated. Looking to the total area, population, economic needs and future potentialities of the district, the total road length falls short of its requirement. The present (1965–66) road length comes to 6.31 km. per

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

100 sq. km. of area as against the State average of 8.95 km. per 100 sq. km.

At the time of the formation of Rajasthan, when the Bikaner State was also merged with Rajasthan, there were hardly any roads in the district. An integrated and planned approach to this problem was adopted with the formulation of the First Five Year Plan. During the first three years of the First Five Year Plan, little progress could be achieved due to dearth of stones, fuel-wood etc. A solution was found later by evolving cheaper and more practical specifications of bricks and jhama ballast for road construction. A total of only 57.9 km. (36 miles) of roads could, however, be constructed during this Plan period. An extensive programme of road construction was launched in the Second Plan, when a separate division of the Public Works Department was set up in Ganganagar in the year 1955 and it justified its existence by constructing 404 km. (250 miles) of roads during this period.

The district has 0.58 km. of surfaced roads per 1,000 square kilometres of area. The road length per 100 square kilometres, on 31st March 1966, was only 6.31 km. in the district as against the target of 16.15 km. laid down in Nagpur Plan. The length of road per lakh of population worked out to 128 km.

Expenditure incurred on the construction of roads, in Ganganagar district, during the three Five Year Plans was as under :

First Plan	.....	Rs. 32.14 lakhs
Second Plan	.....	Rs. 147.86 lakhs
Third Plan	.....	Rs. 151.95 lakhs

Road Administration

The maintenance of all roads in the district is the responsibility of the State, except most of the approach roads, Panchayat Samiti or inter-panchayat roads and culverts on such roads. The latter are the concern of the local bodies like Panchayat Samitis, Zila Parishads and Municipalities, who develop and maintain them with their own resources but mainly with the help of loans and grants received from the State Government.

State Highways, Major District roads and other District roads are constructed and maintained by the State's Public Works Department (Buildings and Roads). The Central Government provides financial and advisory assistance in the construction of the roads of inter-State and

economic importance. The State Government, in turn, provides funds on an ad-hoc basis as and when such need arises to the local bodies in the form of loans and grants for the proper up-keep of roads under their charge.

The State Public Works Department has not yet undertaken any detailed and regular survey of a road-plan, based on road traffic movement and capacities and specifications for the new roads.

Vehicles

The development of roads has given great impetus to the plying of automobiles in Ganganagar district. This is evident from the figures of motor vehicles on road in the district, given below [1]:

(Number)

Year	Private cars and Jeeps	Private buses	Motor cycles, tricycles and rickshaws	Contract and taxi carriages	Stage carriers	Public carriers	Private carriers	Tractors and trailors	Others	Total
1	2	3	4	5	6	7	8	9	10	11
1957	388	—	90	—	172	401	18	1,358	—	2,427
1958	480	—	100	—	239	418	18	1,715	—	2,970
1959	534	—	118	—	276	558	18	1,989	—	3,493
1960	605	3	122	51	320	666	40	2,391	—	4,198
1961	622	3	172	9	334	701	40	2,465	—	4,346
1962	680	3	343	9	347	838	40	2,642	—	4,902
1963	721	6	383	9	354	898	40	2,700	7	5,118
1964	792	10	453	9	359	984	193	2,776	5	5,581
1965	900	10	588	12	365	994	223	2,920	5	6,017

The number of motor vehicles has more than doubled since 1958. This is an eloquent testimony to the prosperity and the rising tempo of all-round development in the district. Nearly half of the auto-vehicles are tractors (2,920 out of a total of 6,017 in 1965) which, with the mechanisation of agriculture, are being increasingly used by prosperous farmers. Jeeps and cars are owned by the upper strata of society which is composed of a few government officers, business executives and rich land owners, traders and industrialists. Taxi cars number only 12 (1965) and are confined to the district headquarters town, viz. Ganganagar. Auto-rickshaws (two seater) and

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

tempo-rickshaws (7 seater) are gradually becoming a means of conveyance for the common man in almost all the urban centres especially at Ganganagar. Taxi fare fixed by the Regional Transport Authority is 16 paise per km. for two seater and 24 paise per km. for seven seater rickshaws. But the cycle rickshaws are more common, being cheaper, and ply in large numbers in almost all the towns. At Ganganagar and Hanumangarh, their number is large and the fare they charge is comparatively lower here than in other district towns. *Tongas* are generally hired for traffic between the towns and the adjoining villages; and there is no competition between the rickshaws and *Tongas*. Bullock-carts and loading donkeys still continue to be the principal means of transport for cultivators for bringing their produce to the *mandis*. They are also used in the *mandi* towns for transporting goods. The number of *tongas*, hackney carriages and cycles on road in Ganganagar town during the last few years (as per Municipal records), is shown in the following table[1] :

(Number)

	1962–63	1963–64	1964–65	1965–66
Tongas	20	22	26	25
Hackney carriages	37	23	28	18
Cycles	Not available	5,578	4,108	5,159

Bus Services

During the year 1965–66, the district was being served by a fleet of 387 buses[2] which carried passengers from almost every nook and corner of the area and connected even small villages, tahsils and towns within and outside the district. The buses ply on 67 routes covering about 2,896.8 km. (1,800 miles). Their daily coverage is over 13,500 km. All the buses at present are privately owned.[3] Generally each operator owns one vehicle, which results in lack of resources for providing organised and integrated services and better comfort. Buses ply in rotation, as per orders of the Regional Transport Authority, at the time of issue and renewal of their permits. There are 30 co-operative societies which also ply buses on various routes in the district. The details about the working of these societies are given later in this chapter.

1. Source : Office of the Ganganagar Municipal Board, Ganganagar.
2. Registered with the Regional Transport Authority.
3. One route has since been nationalised

Goods Traffic

1,298 trucks including 1,039 public and 259 private carriers plied in 1966 in the district to carry goods from different centres of production and storage. The Government owned 133 private carriers and one public carrier for the purpose of carriage of public goods. The rest of the 1,038 public carriers and 126 private carriers were mostly owned by small single-truck-owner operators. Big operators maintain booking and forwarding agencies and provide godown facilities for safe custody and delivery of goods. The freight charged by these trucks is approximately 1,1¼ and 1½ paise per maund per km. (3 pies, 3½ pies and 5 pies per maund per mile) for A, B and C classes of roads, respectively. These are the maximum freight rates authorised by the Regional Transport Authority.

RAILWAYS

The district was one of the earliest, in Rajasthan, to enjoy facilities of rail transport which, to a large extent, compensated for the paucity of road communications. The area was being served by railways, from the beginning of the present century, even before the advent of the Gang Canal. The first day of the year 1901 marked the opening of the first railway line in the area, Dulmera-Suratgarh section of Bikaner State Railway, covering a distance of 115.7 km. (71.85 miles). More lines, connecting important places in the district with places within and outside Bikaner State, were opened. More important of these lines were Suratgarh-Bhatinda Section, started in 1902 and Hanumangarh–Ganganagar section, opened to traffic in 1923. After the advent of the Gang Canal, the whole of its commanded tract was gradually covered by 294.5 km. (183 miles) long Bikaner State Railway tracks, which traversed the area, linking all the Colony markets and towns and leaving no village more than 28.9 km. (18 miles) away from a railway station. The railway line formed a loop on its route and was, therefore, known as the Canal Loop Line. The main towns, served by various sections of this branch, were Ganganagar, Kesrisinghpur, Hanumangarh, Karanpur, Raisinghnagar and Anupgarh. Besides, the North-Western Railway (Broad Gauge) ran on the northern and western borders of the Gang Canal Colony. The district was also served by the Hanumangarh-Sadulpur Chord of the State Railways. By 1931-32, all tahsil headquarters of the Canal Colony, except Padampur and Reni were connected by railway and the facilities provided by this means of transport continued to expand thereafter as well.

The district is now served by five rail tracks of the Northern Railway and the present route length spread in Ganganagar district, stands

at 564 km. (distance between the first and the last railway stations). Four of these are metre gauge lines and the fifth, the smallest running only for a few kilometres inside the district, is a broad gauge line.

Passenger Amenities

For the travelling public, retiring-rooms alongwith a water-cooler, a non-vegetarian refreshment-room, a light refreshment stall and a book-stall have been provided at Hanumangarh Junction. Tea, coffee or light refreshment stalls have also been provided at Bhadra, Ellenabad, Sarupsar Junction, Raisinghnagar, Karanpur, Dalpatsinghpur, Kesrisinghpur, Ganganagar and Sadulshahr. Ganganagar too has a book-stall at the railway station. Waiting-rooms exist at 13 railway stations in the district. Drinking water sheds have been provided at all the stations in the district.

TRAVEL FACILITIES

Ganganagar district could not offer much as an attraction for tourists and has, therefore, lagged behind other parts of the State, in travel facilities which have been rudimentary and confined only to a few traditional *dharamshalas* built by philanthropic persons of the area for use primarily of their own community in most of the towns except at the headquarter town, where a few modern type of hotel facilities exist.

Dharamshalas

Dharamshalas have been built for the convenience of travellers at convenient points, mostly in tahsil towns. There is one big *dharamshala*, known as *Panchayati Dharamshala*, near the Railway Station in Ganganagar town. It has about 60 rooms, is fitted with electric light and sanitary installations and is very well maintained. The charge for each room is only 25 paise per head per day. Three *dharamshalas* exist at Bhadra, one at Sangaria, one at Padampur and two at Raisinghnagar. Electricity and water have been provided in Sangaria and Raisinghnagar *dharamshalas*. There is one rest house maintained by Raisinghnagar Panchayat Samiti, which charges Re. 1 per head per day from all those who want to stay there. Cooking facilities are provided without any extra charges.

Dak-Bungalows and Rest Houses

The State Public Works Department (Buildings and Roads) maintains three dak-bungalows at Hanumangarh, Nohar and Bhadra. The dak-bungalow at Hanumangarh is categorised as A class and is situated in the Canal Colony. It is fitted with electricity and water pipes.

The accommodation consists of 5 bed rooms with attached baths etc. in addition to one drawing-room, one dining room, a pantry, a kitchen and a store-room. This bungalow is being looked after by one *chowkidar* and a cook has been kept to supply meals for the occupants, on payment. The rest houses at Nohar and Bhadra are of B class and C class categories respectively. Both of them are situated near the respective railway stations but are not equipped with electric light and water supply installations. Pull-*Pankhas* (hand-pulled fans) are provided for use in summer. Both of these bungalows contain two bed rooms, one pantry, one dining and three bath rooms and each is being looked after by one *Chowkidar*. No cook has been employed to prepare meals for the occupants. These Dak Bungalows are primarily meant for Government officials on tour, who are required to pay only for electric consumption at the rate of 50 paise and Re. 1 per head in winter and summer respectively.

The Irrigation Department maintains a network of 47 rest houses and inspection bungalows, with varied types of facilities. Most of them are situated in the Canal Colonies of Hanumangarh and Pilibanga and Gang Canal Divisions of the Irrigation Department. Many of these rest houses and inspection bungalows are equipped with electric light, water supply and sanitary installations.

Rest Houses categorised as class I are being looked after by a *chowkidar* and a *farrash* but no cook is being maintained to provide meals to the occupants and also only a *chowkidar* and a *farrash* are being kept in other category of rest houses.

Full details regarding these rest houses are given in the table at Appendix I.

Hotels

There are only three moderately good hotels namely Rajhans Hotel, Rosila Hotel and Standard Hotel at the district headquarter town of Ganganagar, and all of them are situated near the Railway Station. They have 8 to 10 big and small furnished rooms each, available at a rent of Rs. 3 to Rs. 5 per day.

POSTAL AND TELEGRAPHIC SERVICES

Before the adoption of Imperial Postal Unity, in 1904, by the Bikaner Durbar, the State of Bikaner had its own postal system, wherein postal-runners, called *Kasids* carried the dak. Assisted by a camel, for

only one-fourth of the distance, they covered long distances on foot, with marvellous speed. Two of them travelled together, in case one should break down. These runners also continued to be used by the wealthy and well-to-do classes till the second half of the 19th century. A couple of Imperial Post Offices at a few important places were opened during the last quarter of the nineteenth century, and according to Major Erskine, Bhadra, Hanumangarh, Nohar, Suratgarh, Anupgarh, Rawatsar, Mirzawala and Tibi had a post office each by 1908.[1] Besides, all railway stations had their independent telegraph offices.[2]

After the merger of the State in Rajasthan, rapid expansion of post and telegraph facilities has taken place, both in urban and rural areas of the district. At present (1965–66), there are 293 post offices in all in the district. The number has nearly doubled since 1958 and increased almost 10 times since Independence. Postal facilities in the towns are available within a radius of one kilometre from any point. The delivery of the *dak* is efficiently done through postmen and extra-departmental agents and the average time taken for a letter to reach its destination, even in villages in the interior, is two days. All the post offices in the district are under the administrative control of the Head Post Office at Ganganagar. Nineteen of them work as combined post and telegraph offices. There is one departmental telegraph office at Ganganagar extending telegraphic services only.

The following table gives the year-wise growth of post and telegraph offices in the district[3]:

(Number)

Year	Post Offices	Telegraph Offices
1956–57	141	11
1957–58	148	11
1958–59	150	12
1959–60	166	15
1960–61	184	13
1961–62	221	15
1962–63	220	15
1963–64	220	15
1964–65	293	15
1965–66	293	20

1. Erskine, Major K.D., *Rajputana Gazetteers, Vol. III-B, The Western Rajputana States Residency and Bikaner Agency*, 1909, p. 94 (table LXII).
2. *ibid*, Vol. III-A, p. 354.
3. *Statistical Abstract, Rajasthan*, yearly volumes for various years.

TELEPHONE FACILITIES

At the close of the year 1965-66, there were ten telephone exchanges and nine public call offices, in the district. All the tahsil head-quarters except Anupgarh, Padampur and Tibi had a telephone exchange and atleast a public call office each, besides a separate telephone exchange at Hanumangarh town, set up during 1964-65. The growth of the telephonic facilities can be visualised from the following table, which gives the year-wise growth of the exchanges :

(Number)

Year	Telephone Exchanges
1957–58	5
1958–59	5
1959–60	5
1960–61	5
1961–62	6
1962–63	8
1963–64	9
1964–65	10
1965–66	10

All these telephone exchanges except one are of Central Battery Multiple Type and are manually operated. The exchange at Ganganagar provided 370 connections in 1965-66. A switch-board with 600-connection capacity has been installed recently and the working connections are expected to increase to capacity soon. A proposal to convert it to a 1000-line auto-exchange is under consideration and necessary equipment and other essentials are being procured.

The following is the table giving an overall idea of the telephone

facilities available in the district as on 31st March 1966[1]:

S. No.	Exchange	Type	Number of telephone connections		
			Capacity	Working	Extensions
1.	Bhadra	Manual	50	39	—
2.	Hanumangarh Jn.	–do–	77	58	6
3.	Hanumangarh Town	Sub-Auto	100	25	4
4.	Nohar	Manual	50	36	1
5.	Raisinghnagar	–do–	100	45	1
6.	Sadulshahr	–do–	50	22	2
7.	Sangaria	–do–	100	53	1
8.	Karanpur	–do–	50	42	2
9.	Ganganagar	–do–	600	370	31
10.	Suratgarh	–do–	50	37	3

No radio-broadcasting station has been set up in the district.

TRANSPORT UNIONS

There is a registered Truck Operators Union at Hanumangarh, with a membership of 49. It was formed in February 1966. Three unions of the transport workers exist in the district, and they safeguard the economic interests of their members. One of them, the District Motor Transport Workers Union, Ganganagar, owns one bus which is being run on Ganganagar-Padampur route. The details about the constitution, registration and membership of these three unions are given below[2]:

	Name	Date of formation	Registration Number	Affiliation	Membership	
					Initial	1964-65
1.	District Motor Transport Workers Union, Ganganagar	11.8.1962	33/62 dt. 26.11.62	All India Trade Union Congress	250	40
2.	Ganganagar Transport Mazdoor Union, Ganganagar	11.6.1964	70/64 dt. 16.7.64	Indian National Trade Union Congress	50	50
3.	Ganganagar Rickshaw Mazdoor Union, Ganganagar	28.2.1965	44/65 dt. 7.4.65	—	60	60

1. Source : Office of the Sub-Divisional Officer, Telegraphs, Bikaner.
2. Source : Office of the Labour Commissioner, Rajasthan, Jaipur.

CO-OPERATIVE TRANSPORT SERVICES[1]

Transport Co-operative Movement started in the district in the year 1955, when the first Transport Co-operative Society was registered on 7th June 1955. Co-operative societies in the field of transport have developed of their own accord without much assistance, as except for the preference in the allotment of permits by the transport authorities, there is no provision for any financial or other help from Government.

At present (1965-66) there are twenty-nine transport co-operative societies which operate public carriages and one society working in the field of goods transport. Of these only 13 are active and the rest are almost defunct. Majority of them are small societies and own one to three vehicles each. Only seven big co-operative societies are there. All societies have a membership of 782, a paid-up capital of Rs. 14.89 lakhs and a working capital of Rs. 23.30 lakhs. Their total investment in the fifty vehicles owned by them amounts to about Rs. 10.98 lakhs. The number of routes allowed to these societies by the Regional Transport Authority is 50, covering a distance of 1,276 km. (793 miles) of which 25 routes with 920.5 km. (572 miles) are pucca. The names of these societies are given in Appendix II.

The position of these co-operative societies during the last five years is given below in a tabular form:

Particulars	Unit	1961-62	1962-63	1963-64	1964-65	1965-66
Transport Co-operative Societies	(Number)	35	33	31	30	30
Membership	(Number)	769	721	696	649	782
Share capital	(Lakhs of Rs.)	6.86	6.00	5.87	6.14	14.89
Working capital	(Lakhs of Rs.)	19.17	22.87	21.67	16.63	23.30
Number of buses owned	(Number)	73	70	53	57	50
Value of buses	(Lakhs of Rs.)	18.17	17.19	14.38	16.64	10.98
Routes owned	(Number)	73	70	53	57	50

1. Source: Registrar, Co-operative Societies, Rajasthan, Jaipur & Asstt. Registrar, Co-operative Societies, Ganganagar.

APPENDIX I

Irrigation Rest Houses in Ganganagar District (1965–66)

S. No.	Name	Location	Class	Number of rooms	Light & water facilities
1	2	3	4	5	6
Hanumangarh Division					
1.	Hanumangarh (Canal Colony)	Near Hanumangarh Junction Railway Station	Double I Class	4 Double bed-rooms with atta-ched toilet and a kitchen	Provided
2.	Santpura	At tail Karansingh Branch	I Class	2 bed-rooms with attached toilet, one dining room, one kitchen	No fittings. Local arrange-ment made through the staff of the rest-house at the cost of the occupant.
3.	Amarpura (Khat)	At Amarpur Distributary	Distributary Rest House	4 bed-rooms and a kitchen	—do—
4.	Hakimabad	Tail Karnisingh Distributary	-do-	-do-	—do—
5.	Sangaria (Canal Colony)	Near Sangaria Railway Station	I Class	2 bed-rooms with attached toilet and bath rooms, a dining room and a kitchen	Provided

APPENDIX I—(contd.)

1	2	3	4	5	6
6.	Sadulshahr (Canal Colony)	Near Railway Station Sadulshahr	Distributary Rest House	4 bed-rooms and a kitchen	Provided
7.	Manaksar	Near Manaksar Railway Station	I Class	2 bed-rooms with attached toilet and bath-room, a dining room and a kitchen	Local arrangement made through the staff of the rest-house at the cost of the occupant
8.	Dholipal	2 4 km. from Dholipal Railway Station	Distributary Rest House	4 bed-rooms and a kitchen	—do—
9.	Sundarpura	Tail Morjandan Distributary	–do–	–do–	—do—
10.	Paka Sarnan	25.7 km. from Hanumangarh Junction Railway Station	–do– –do–	–do– –do–	—do—
11.	Bholewala	46.7 km. from Hanumangarh Railway Station	–do–	–do–	—do—
12	Gudiya	At Tail Khara Sub-Branch	–do–	–do–	—do—
13.	Surewala	On North Ghaggar Canal	–do–	–do–	—do—

APPENDIX I—(contd.)

1	2	3	4	5	6
14.	Dhaban	On Sadul Branch near Dhaban Railway Station	I Class	2 bed-rooms with attached toilet, bath-room, a dining room, and a kitchen	Local arrangement made through the staff of the rest house at the cost of the occupant
	Pilibanga Division				
1.	Pilibanga (Canal Colony)	Near Pilibanga Railway Station	Distributary Rest House	3 bed-rooms and a kitchen	Local arrangement for water available
2.	Karnisar (Canal Colony)	At Pili banga Distributary	–do–	3 bed-rooms	—do—
3.	Sardargarh (Canal Colony)	Near Sardargarh Railway Station	–do–	–do–	—do—
4.	Sardarpura (Canal Colony)	At Longwala Distributary	–do–	–do–	—do—
5.	Tail Sadul Branch	At Sadul Branch tail	I Class	–do–	—do—
6.	Chhani (Canal Colony)	At Amar Singh Branch	Distributary Rest House	2 bed-rooms	Local arrangement for water available
7.	Bhadra (Canal Colony)	Near Bhadra Railway Station	–do–	–do–	—do—
8.	Tail Amar Singh (Canal Colony)	14.5 km. from Bhadra Railway Station	–do–	–do–	—do—

APPENDIX I—(contd.)

1	2	3	4	5	6
9.	Ramgarh (Ujjalbas) (Canal Colony)	4.8 km. from Ramgarh (Ujjalbas) Railway Station	Distributary Rest House	2 bed-rooms	Local arrangement for water available
10.	Nohar (Canal Colony)	2.4 km. from Nohar Railway Station	–do–	–do–	—do—
11.	Phephana (Canal Colony)	At Khinaniyan Distributary	–do–	–do–	—do—
12.	Hanslia (Canal Colony)	At Modia	–do–	3 bed-rooms	—do—
13.	Tibi (Canal Colony)	Near Tibi Railway Station	–do–	–do–	—do—
	Gang Canal Division				
	Ganganagar Sub-Division				
1.	Ganganagar	Canal Colony, Ganganagar	Double I Class	7 bed-rooms and one drawing room	Provided
2.	Shivpur	R.D. 423368 of Gang Canal	I Class	3 bed-rooms and one drawing room	No provision
3.	Hindumalkot	Canal Colony Hindumalkot	I Class	–do–	—do—
4.	Netawali	R.D. 82,383 of Feeder	II Class	2 bed-rooms and one drawing room	—do—

APPENDIX I—(contd.)

1	2	3	4	5	6
	Padampur Sub-Division				
1.	Padampur	R.D.65-66 B.B. Distributary	I Class	3 bed-rooms	Electricity provided, no water supply system
2.	Sulaimanki	R.D. 134–135 of Feeder	II Class	2 bed-rooms	Not provided
3.	Chunawadh	R.D. 44 G.G. 1st Distributary	–do–	–do–	—do—
4.	Godhuwali	R.D. 10–11 N. N. Minor	III Class	–do–	—do—
	Raisinghnagar Sub-Division				
1.	Raisinghnagar	Canal Colony	I Class	One bed-room and one Hall (2 bed-rooms in possession of R.A.C.)	Electricity provided, no water supply arrangements
2.	Faquirwali	At R.D. 185, 626 of Feeder	II Class	2 bed-rooms & one Hall	No provision
	Karanpur Sub-Division				
1.	Karanpur (Canal Colony)	Canal Colony	I Class	3 bed rooms	Provided
2.	Kesrisinghpur	Canal Colony	II Class	2 bed rooms	Only electricity provided
3.	Barringan	At R.D.14,481 Feeder Distributary	III Class	1 bed room	Not provided

APPENDIX I—(concld.)

1	2	3	4	5	6
4.	Pabusar	At R.D. 190,735 Feeder Distributary	III Class	1 bed-room	Not provided
5.	Gajsinghpur	Canal Colony	II Class	2 bed-rooms	Electricity supply arrangements provided
	Jaitsar Sub-Division				
1.	Jaitsar	Canal Colony	–do–	Constructed as a residential building, used by S.D.O., Jaitsar	—do—
2.	Dabla	At 240,030 of Feeder	III Class	2 bed rooms	No water supply
3.	Raisinghpur	Canal Colony	–do–	–do–	—do—
4.	Nanuwali (Chab Nanu)	At R.D.68,337 of Sameja Distributary	III Class	2 bed rooms	No provision
5.	Bijainagar	Canal Colony	II Class	3 bed rooms	Provided

Note : Divisions and Sub-Divisions here refer to the Irrigation Divisions and Sub-Divisions,

Source : Offices of the Executive Engineer Gang Canal Division, Ganganagar and Superintending Engineer, Bikaner Irrigation Circle, Ganganagar.

APPENDIX II

Transport Co-operative Societies in District Ganganagar (1965–66)

S. No.	Name of the society	Membership	Share Capital Rs.	Working Capital Rs.
1	2	3	4	5
1.	Bharat Bus Transport Co-operative Society, Bhadra	36	50,500	89,274
2.	Rastirya Bhutpurva Sainik Transport Co-operative Society, Bhadra	31	24,900	50,512
3.	Jeewan Motor Transport Co-operative Society, Bhadra	52	9,05,200	2,95,974
4.	Govindpura Transport Co-operative Society, Govindpura P.S. Mirzawala	63	1,600	1,680
5.	Kamla Motor Transport Co-operative Society, Ganganagar	16	1,920	2,025
6.	Janta Transport Co-operative Society Ltd., Mohanpura P.S. Mirzawala	26	17,900	31,553
7.	Pilibanga Transport Co-operative Society, Pilibanga	27	16,000	16,027
8.	Suratgarh Transport Co-operative Society, Suratgarh	27	16,000	16,027
9.	Karanpur Motor Transport Co-operative Society, Karanpur	35	16,800	47,559
10.	National Motor Transport Co-operative Society, Kesrisinghpur	17	11,295	39,372
11.	Bhutpurva Sainik Transport Co-operative Society, Karanpur	16	1,500	1,07,989
12.	Supreme Motor Transport Co-operative Society Ltd., Karanpur	25	3,300	76,147
13.	Santpura Motor Transport Co-operative Society, Santpura P.S. Sadulshahr	23	16,700 (in 1963-64)	39,650 (in 1963-64)
14.	Zamindar Motor Transport Co-operative Society Ltd., Ganganagar	23	1,150	44,330

APPENDIX II—(concld.)

1	2	3	4	5
15.	Sewak Motor Transport Co-operative Society, Ganganagar	14	30,400	1,40,324
16.	Bharat Transport Co-operative Society Ltd., Ganganagar	14	3,475	91,872
17.	Krishna Transport Co-operative Society Ltd., Ganganagar	15	10,900	20,739
18.	General Motor Transport Co-operative Society Ltd., Ganganagar	12	11,865	12,924
19.	Ganesh Motor Transport Co-operative Society Ltd., Ganganagar	22	44,000	2,22,149
20.	Ramnagar Motor Transport Co-operative Society Ltd., Ganganagar	15	13,050	41,736
21.	Rajasthan Transport Co-operative Society Ltd., Ganganagar	59	81,000	1,46,316
22.	Gurunanak Transport Co-operative Society Ltd., Ganganagar	34	49,800	4,69,774
23.	Gandhi Transport Co-operative Society Ltd., Ganganagar	19	30,850	1,21,138
24.	The Pratap Transport Co-operative Society Ltd., Ganganagar	23	13,000	52,759
25.	Ganganagar Transport Co-operative Society Ltd., Ganganagar	18	51,900	53,816
26.	Patel Transport Co-operative Society Ltd., Ganganagar	13	12,150	38,950
27.	New India Transport Co-operative Society Ltd., Ganganagar	24	16,000	91,843
28.	Subahsh Motor Transport Co-operative Society, Nohar	33	31,000	61,777
29.	Sangaria Motor Transport Co-operative Society, Sangaria	20	2,100	2,778
30.	Bhagatpura Motor Transport Co-operative Society, Bhagatpura (P. S. Hanumangarh)	30	3,000	3,150

Source: Office of the Registrar, Co-operative Societies, Rajasthan, Jaipur.

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS

Agriculture is the main occupation of the people of the district, but other occupations have followed in the wake of growing agricultural prosperity, indicating broadening of economic infra-structure and attracting people from within and outside the district. Industries and other development projects, which could share the agricultural boon, have been given higher priority in the Five Year Plans of the district, and consequently, employment opportunities in these fields have been multiplying fast. Public welfare services have also kept pace and have increased rapidly. In the absence of any regular occupational survey, the analysis of the occupational pattern has been attempted on the basis of information contained in the Census and other official reports.

The data relating to occupational pattern of the district was collected for the first time in the 1951 Census. According to this Census report, the percentage of population depending, directly or indirectly, upon agriculture was 81.1, inclusive of non-cultivating owners of land and their dependants constituting in themselves only 0.9 per cent of the population. Thus the actual cultivators and their dependants constituted 80.2 per cent of the population, which is indicative of predominantly agricultural economy of the district. Compared to this, the percentage of the population of Rajasthan, as a whole, which depended directly or indirectly on agriculture for livelihood, was 70.87. Of the district population, 47.5 per cent were cultivators of land wholly or mainly owned and their dependants, while cultivators of unowned land, together with their dependants, accounted for another 25.2 per cent. The agricultural labour accounted for 7.5 per cent and non-agricultural occupations for another 18.9 per cent of the population. Of the later, Services and Miscellaneous Sources accounted for 9 per cent, Industry or production of goods other than cultivation for 3.7 per cent, and Trade and Commerce for 5.7 per cent, while 0.5 per cent of the population was depending on transport industry. The all-Rajasthan corresponding percentages of dependants on non-agricultural categories of livelihood classes viz. Services and Miscellaneous Sources, production (other than cultivation), Trade and commerce and transport were 12.73, 8.88, 6.58 and 0.94 respectively.

According to the 1961 Census, the general pattern of occupations in the district, was as follows :

S.No.	Description of occupation	Total population engaged in							
		Ganganagar District				Rajasthan State			
		Males	Females	Total	Percentage of population	Males	Females	Total	Percentage of population
1.	Cultivators	1,97,036	75,409	2,72,445	26.30	42,05,067	28,50,012	70,55,079	35.0
2.	Agricultural Labourers	40,653	5,823	46,479	4.40	2,30,193	1,63,438	3,93,631	1.9
3.	Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations, Orchards & Allied Activities	1,331	35	1,366	0.13	1,22,737	48,344	1,71,081	0.8
4.	Household Industry	7,886	1,996	9,882	0.98	3,97,504	2,00,678	5,98,182	3.0
5.	Manufacturing, other than Household Industry	11,215	1,283	12,498	1.20	1,51,184	20,841	1,72,025	0.9
6.	Construction	10,399	1,745	12,144	1.17	96,908	12,254	1,09,162	0.5
7.	Trade & Commerce	16,851	174	17,025	1.64	2,74,232	13,925	2,88,157	1.4
8.	Transport, Storage & Communications	4,795	12	4,807	0.46	1,16,975	934	1,17,909	0.6
9.	Other Services	27,281	2,519	29,800	2.90	5,46,706	1,31,908	6,78,614	3.4
10.	Non-workers	2,45,784	3,85,196	6,30,980	60.82	44,22,576	61,49,186	105,71,762	52.5

Thus, in 1961, the working population of the district constituted 39.18 per cent of the total inhabitants. Of this, the highest percentage i.e. 30.7 constituted of workers depending upon agriculture for their livelihood, engaged either as independent cultivators (26.3 per cent) or as agricultural labourers (4.4 per cent). The remaining 8.48 per cent of the working population was engaged in non-farming occupations, which included Other Services, with 2.9 per cent, Trade and Commerce having 1.64 per cent and 1.2 per cent in Manufacturing, other than household industry. Two big manufacturings undertaking in the district viz. the Ganganagar Sugar Mills and the Sadul Textiles Ltd. employed about 15 per cent of the total number of workers employed in manufacturing sector. Another 1.17 per cent of the total population was employed in construction activities while. 0.98 per cent, 0.46 per cent and 0.13 per cent were engaged in Household industry, Transport, storage and communications and Mining, quarrying etc. respectively.

The non-working population of the district was 60.82 per cent of the total and included forced non-workers in the age-group 15-60, temporarily non-working but seeking employment.

The Census Report of 1961 also provides information relating to the classification of unemployed population by educational standards, between the ages 15-60, both in the rural and urban areas. They have been further classified by age-groups and also according to whether the unemployed person was seeking a job for the first time or was employed earlier. The first category of 144 (all males) fresh job seekers in the urban areas, naturally consisted mostly of young persons in the age-group 15-24 years, and the other category comprised of 196 persons (including 5 women) in towns of a little older age, 1/7th of them above the age of 35 years. Thus the total number of urban unemployed was 340 including 5 females, out of which 121 or about 1/3rd were illiterate and the rest were just able to read and write[1].

In the rural areas, 342 persons (226 males and 116 females), above the age of 15, were seeking jobs. The proportion of illiterates, amongst the rural unemployed was more than that of their urban counterparts, being about 3/5th of the total. Thus the total number of unemployed

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, pp. 640-641.

persons as compared to the total working population of the district was not very large.[1]

PUBLIC ADMINISTRATION

With the passage of time, the tempo of development has increased and so has the volume and complexities of administration. Consequently, the number of employees at various levels of administration has increased substantially. In 1951, according to the Census figures, 7,537 persons (7,383 males and 154 females) were engaged in public administration. This included 471 employees of the Central and 5,856 of the State Government (including 61 females), 694 police employees excluding village watchmen (15 being females) and 516 (438 males and 78 females) employees of the local bodies (287, including 43 women, of village Panchayats and 229, including 35 women, of municipalities.)[2]

The 1961 Census records the working population of the district, engaged in public administration as under[3] :

(Number)

Category of Officials	Total	Males	Females
1. Central Government	66	66	—
2. State Government	547	546	1
3. Local Government	34	31	3
4. Quasi Government	81	81	—
5. Village Officials	944	916	28
6. Other Administrative & Executive Officials	47	46	1
Total	1,719	1,686	33

Due to a shift in emphasis on occupational classification, the 1961 Census Report does not give consolidated figures for the total number of public employees at various levels of administration, but, instead, has included them in their respective occupational categories e.g. doctors,

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, pp. 668.
2. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I*, pp. 118-119.
3. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, p. 24.

engineers, teachers, clerical and related workers, transport and communication workers (including Railways, Post & Telegraph Department employees) etc. It is, therefore, not possible to estimate the total number of public servants from the Census figures. However, according to the estimates of the Directorate of Employment, Rajasthan, the number of public employees was 14,574, 16,686, 16,054 and 18,886 in 1962-63, 1963-64, 1964-65 and 1965-66 respectively, as detailed below[1] :

Employees' Category	No. of persons employed on			
	31.3.63	31.3.64	31.3.65	31.3.66
1. Central Government	602	592	663	671
2. State Government	9,624	12,088	11,284	12,751
3. Quasi Government	1,772	1,140	1,105	2,248
4. Local Bodies	2,576	2,866	3,002	3,216
Total	14,574	16,686	16,054	18,886

A glance at the above table reveals that there has been considerable increase in the number of persons engaged in public administration in the district. This increase in the public employees can primarily be attributed to the expansion of Governmental activities and attraction provided by the security of employment and other rights and privileges which such employment confers on public servants.

Government servants and employees of local bodies in the district enjoy many amenities like those available to other State/Central Government employees. In addition to the basic pay, all employees are paid dearness allowance determined according to the amount of pay of the official. Loans are given for the construction of houses and purchase of conveyance. The Government also provide residential quarters on reasonable rent and 194 such quarters have been constructed at the district headquarter town, where house rent allowance is given to those neither owning a house nor provided with Government accommodation. Free medical aid is available to the Government employee, his family members and

1. *Annual Employment Market Reports of Ganganagar Employment Market Area* for the years 1963-64 & 1965-66.

dependant parents. Benefits of Compulsory Life Insurance have been extended and childern of all employees, drawing below Rs. 400 as their basic monthly pay, are entitled to free education in Government run institutions.

LEARNED PROFESSIONS

Most important of the learned professions followed in the district are teaching, medicine, law and engineering.

Teaching

The 1951 Census recorded the number of persons engaged in educational services and research at 938 (including 68 women). The largest number of these were teachers (862 males and 58 females) serving in schools and only 3 persons (1 male and 2 females) were college teachers. The remaining (7 males and 8 females) were clerks or non-teaching staff.[1] Since 1951, there has been a considerable expansion in the educational facilities and institutions, at all levels. Along with the opening of a large number of primary, junior secondary and higher secondary schools, four degree colleges[2] (2 Government and 2 private) have been opened at the district headquarters, including one Government Degree College for women. With the expansion of the teaching institutions, the demand for trained teachers has also grown substantially. To cater to this growing need for trained teachers, basic training schools have been opened. An Industrial Training Institute at Ganganagar and an Agricultural College at Sangaria are also functioning to impart technical education in different trades.

The Census Report of 1961 recorded the number of persons engaged in teaching profession as 2,184, which included 78 college lecturers, of whom 9 were women, 228 were secondary school teachers (including 26 women), 1,604 (including 145 women) middle and primary school teachers, and 11 (including 1 woman) teacher in nursery and kindergarten schools.[3] The remaining 263 teachers (including 43 women) were included in a separate unclassified category, which comprised private tutors, teachers in professional schools and those running private coaching institutions etc. By 1962–63, the number of teachers had increased to 2,877 i.e. by about

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar*, Part I, p.118.
2. Government Boys College, Ganganagar has since become a Post-graduate College.
3. *Census of India 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, pp. 22 and 364.

33 per cent more than in 1961. The number reached 3,266 in 1964–65. The following table gives category-wise distribution of teachers from 1962–63 to 1964-65[1] ;

(Number)

Work Category	1962–63			1963-64			1964–65		
	Males	Females	Total	Males	Females	Total	Males	Females	Total
1. College Teachers	68	11	79	64	14	78	116	20	136
2. Teachers—Secondary Schools	490	90	580	590	100	690	541	116	657
3. Teachers—Senior, Basic and Middle Schools	654	63	717	734	78	812	723	96	819
4. Teachers—Junior Basic Schools	129	7	136	130	10	140	129	5	134
5. Teachers—Primary Schools	1,225	121	1,346	1,349	138	1,487	1,367	149	1,516
6. Teachers—Professional, Special coaching and other Schools	19	—	19	30	—	30	4	—	4
Total	2,585	292	2,886	2,897	340	3,237	2,880	386	3,266

1. *Statistical Abstract, Rajasthan*, Yearly Volumes for various years.

It can be noticed from the table, that a very little percentage of teachers (about 12) in this district consisted of women. The percentage of women employees, however, in all types of professions has been steadily increasing and stood at 3.27 on 31st March, 1966.

The service conditions and pay and allowances, in the Government and private aided institutions, are almost the same, as this uniformity has been made a pre-condition by the Government for the award of grants-in-aid to private institutions. Free medical aid and house rent allowance, however, are not provided to employees of private institutions. Besides, permission to school teachers to take up private tutions upto a maximum of two at a time, helps them supplement their incomes. The Rajasthan University and College Teachers' Association and the Rajasthan Shikshak Sangh look after the general welfare of the teachers.

Medical Profession

Medical facilities have been growing fast in the district, both in the urban and rural areas. Consequently the number of persons pursuing medical profession has also increased substantially, during the last fifteen years. The growing economic prosperity of the majority of the population of the district, comprising agriculturists, has also helped in attracting private medical practitioners to the area. As against 63 doctors, 91 *Vaidyas*, 6 midwives, 7 compounders and 4 nurses working in the district in 1951[1], 1961 Census[2] recorded the number of such persons as follows :

Category	Total			Urban		
	Persons	Males	Females	Persons	Males	Females
PHYSICIANS, SURGEONS AND DENTISTS						
1. Physicians & Surgeons (Allopathic)	124	121	3	68	66	2
2. Physicians (Ayurvedic)	372	369	3	125	124	1
3. Physicians (Homeopathic)	11	9	2	6	4	2
4. Other Physicians	7	7	—	—	—	—
5. Physiologists	34	34	—	34	34	—
6. Dentists	4	4	—	3	3	—
7. Physicians, Surgeons & Dentists not classified	22	22	—	22	22	—
Total	574	566	8	258	253	5

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I*, pp. 117–118.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, p. 22.

Category	Total			Urban		
	Persons	Males	Females	Persons	Males	Females
NURSES, PHARMACISTS AND OTHER MEDICAL & HEALTH TECHNICIANS						
1. Nurses	57	6	51	24	6	18
2. Midwife and Health Visitors	40	10	30	20	6	14
3. Nursing attendants and related workers	35	21	14	8	3	5
4. Pharmacists and Pharmaceutical technicians	139	138	1	115	114	1
5. Vaccinators	11	11	—	11	11	-
6. Sanitation technicians	8	8	—	6	6	—
7. Optometrists and opticians	2	2	—	2	2	—
8. Medical & Health technicians not classified	27	25	2	26	24	2
Total	319	221	98	212	172	40

The people of this district seem to prefer allopathic treatment, though Ayurvedic and Unani systems also prevail. This is evident from the flourishing business of the chemists in most of the towns of the district and also from the number of registered allopathic medical practitioners in the rural areas.

The doctors in Ganganagar city organised themselves as a branch of Indian Medical Association in 1953.[1] At present, the membership of this Association is 25 and occasional meetings are held to discuss new developments in the fields of medicine and surgery, and also to take up with the Government, all matters of vital interest to the medical profession.

1. Source : Office of the District Medical & Health Officer, Ganganagar.

Legal Profession

Legal profession has also been attracting a large number of educated persons in the district. Frequent disputes about land rights amongst the agriculturists, who are economically well-off and can afford to pay handsome fees to their legal advisors, have largely contributed to make it a popular profession. It also enjoys a special status in the social life of the community and has given birth to active political leaders. With the setting up of Nyaya Panchayats, under the scheme of democratic decentralisation, the profession has been a little hard hit, as many minor disputes get settled at the level of the Nyaya Panchayats through arbitration and mutual agreements amongst the parties. Nevertheless, in recent times, the number of persons following legal profession has increased considerably. Whereas, there were only 29 persons (all males) enrolled as pleaders in 1951 Census[1], the number had grown up to 307 (all males) in 1961, comprising of 187 legal parctitioners and advisors, 97 jurists and legal technicians including petition writers, 10 judges and magistrates and 13 law assistants. The rural and urban area-wise number of these was as follows[2] :

Category	Total	Urban	Rural
Legal Practitioners and Advisors	187	180	7
Jurists and Legal Technicians (including Petition Writers)	97	89	8
Judges and Magistrates	10	10	—
Law Assistants	13	12	1
Total	307	291	16

Engineering

The district, being served by three big irrigation systems, has a large number of civil engineers, of all cadres, and other technical personnel.

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I,* p. 121.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables,* pp. 23 and 364.

It is served by a division of the Building and Roads section of the State Public Works Department. The Rajasthan State Electricity Board and some of the big Industries, like the Ganganagar Sugar Mills, the Sadul Textiles Ltd., Ganganagar, also employ electrical and mechanical engineers and other technical personnel of various branches. The number of such personnel, employed by the Ganganagar Sugar Mills and Sadul Textiles Ltd., alone stood at 478 on 31st December 1963. The 1951 Census[1] recorded 2 persons (both males) as Engineers (in Government service) and 115 as Surveyors (112 males and 3 females). The 1961 Census recorded the following categories of technical personnel under the heading Architects, Engineers and Surveyors[2].

Category	Total	Urban
Civil Engineers (including Overseers)	257	76
Mechanical Engineers	10	5
Electrical Engineers	8	6
Chemical Engineers	1	1
Surveyors	10	6
Architects, Engineers & Surveyors not elsewhere classified	15	15
Total	301	109

Since 1961, the number of engineering personnel, in the district, is steadily increasing on account of the progress of work under the Rajasthan Canal Project and the gradual industrialisation of the area.

DOMESTIC AND PERSONAL SERVICES

Domestic servants, barbers, washermen, tailors, shoe-makers etc. fall under this category.

Domestic servants are generally employed by businessmen and other well-to-do families mostly in the urban areas. These servants are utilised for cooking or for looking after the domestic cattle and discharging other miscellaneous duties, like cleaning utensils and gardening etc., connected with the household. They include employees, working on full time or part time basis. These domestic servants, generally hail from

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I,* pp. 119 and 121.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables,* pp. 22 and 364.

Nepal and Himachal Pradesh. There are also some Kahars coming mostly from the Saharanpur district of Uttar Pradesh. Domestic work is rarely taken up by local inhabitants who find cultivation more lucrative. Wages of these servants are paid partly in cash and partly in kind, apart from daily or occasional meal, tea, *Biris* and second hand clothes, and all this amounts Rs. 2 to 3 per day. The 1951 Census recorded the number of persons rendering domestic service by non-members of the households as 1,335 (1,245 males and 90 females). This included 241 private motor drivers and cleaners, 23 cooks, 47 gardeners and 1,024 domestic servants of miscellaneous type.[1] The 1961 Census does not separately give the number of domestic workers but they have been included in the occupational category namely house keepers, cooks, maids and related workers.

Other personal services are also quite lucrative. Well equipped barber's saloons have sprung up in most of the towns though the traditional *Nais* still predominate. The average daily earnings of a person engaged in this profession at Ganganagar and other bigger towns range from Rs. 5 to 10. Washerman's charges are comparatively higher due to water shortage, particularly in the urban areas, and this accounts for handsome earnings for both the traditional *Dhobis* and others who have taken to this profession by opening laundries in the urban areas.

Tailoring is also very paying. Tailors do not necessarily belong to the old caste of *Darjis*. A few well-educated persons belonging to the upper strata of society have also taken up this profession.

Leather-work including shoe-making is also losing its caste monopoly, being no longer confined to the traditional *Mochis* only. Other classes are also engaged in this profession and they have organised manufacturing units of various types of leather-goods.

The number of persons recorded as barbers, washermen, tailors and shoe-makers, in 1951 Census, is shown in the following table[2] :

Category	Persons	Males	Females
1. Barbers	360	360	—
2. Washermen	173	173	—
3. (a) Tailors	849	781	68
(b) Silk embroidary workers	81	80	1
4. (a) Leather tanners	347	347	—
(b) Leather shoe-makers	848	789	59
(c) Other Leather workers	79	47	32

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I*, p. 120.
2. *Ibid.*, pp. 109-10 & 120.

The sweeping and scavenging work is done by local *Harijans*, as well as by those who are immigrants from Haryana. A section of *Majhabi* Sikhs have also taken to this job especially in the rural areas. The *Harijans* have a separate residential colony of pucca houses in Ganganagar town, which is provided with the facilities of electricity, protected water supply and a school for children. The *Harijans* have formed associations in Ganganagar and other towns to safeguard their vital interests.

Thus all these professional classes are economically quite well off because of the over-all prosperity of the area. The number of persons engaged in domestic and personal services at the time of 1961 Census is given below[1] :

Work Category	Total			Urban		
	Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7
House-keepers, Matrons, Stewards (Domestic and institutional)	14	14	—	14	14	—
Cooks, Cook-bearers (Domestic and institutional)	502	484	18	318	305	13
Butlers, bearers, waitors, maids and servants (domestic)	638	575	63	396	360	36
Ayas, nurse-maids	2	2	—	—	—	—
Other house-keepers, cooks, maids and related workers	53	42	11	23	21	2
Barbers, hair dressers, beauticians and related workers	663	662	1	336	335	1
Laundrymen, washermen and *dhobis*	238	207	31	192	164	28
Drycleaners and pressers	56	56	—	55	55	—
Tailors, dress makers and garment makers	1,810	1,450	360	948	873	75
Hat and head-gear makers	3	3	—	3	3	—
Furriers	2	2	—	2	2	—
Upholsterers and related workers	60	60	—	60	60	—

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, pp. 30, 33 and 34.

1	2	3	4	5	6	7
Pattern makers, markers and cutters—textile products, leather garments and gloves.	2	1	1	2	1	1
Sewers, embroiderers and darners—textile and fur products	26	13	23	19	11	8
Other tailors, dress makers and garment makers etc.	241	199	42	2	2	—
Shoe-makers and shoe repairers	1,759	1,648	111	1,084	1,009	75
Cutters, lasters, sewers, footwear and related workers	37	9	28	32	5	27
Harness and Saddle makers	1	1	—	1	1	—
Other leather cutters, lasters and sewers etc.	66	59	7	33	33	—

OTHER OCCUPATIONS

Other non-farming occupations in the district at time of the 1961 Census are given in the table below[1] :

S No.	Work Category	Total			Urban		
		Persons	Males	Females	Persons	Males	Females
1	2	3	4	5	6	7	8
1.	Chemists, physicisits, geologists and other physical scientists	30	30	—	15	15	—
2.	Biologists, veterinarians, agronomists and related scientists	37	37	—	10	10	—
3.	Social scientists and related workers	84	81	3	43	40	3
4.	Artists, writers and related workers	157	152	5	84	82	2
5.	Draughtsmen and science and engineering technicians, etc.	31	31	—	—	—	—

1. *Census of India*, 1961, *Vol XIV, Rajasthan, Part II–B (ii), General Economic Tables*, pp. 22-34.

1	2	3	4	5	6	7	8
6.	Miscellaneous professional, technical and related workers	542	518	24	217	198	19
7.	Directors and managers, wholesale and retail trade	18	18	—	14	14	—
8.	Working proprietors, wholesale and retail trade.	13,917	13,827	90	7,668	7,634	34
9.	Directors, managers and working proprietors, financial institutions	58	58	—	56	56	—
10.	Other Directors, managers and working proprietors	1,183	1,177	6	989	986	3
11.	Book-keepers and Cashiers	1,236	1,236	—	998	998	—
12.	Stenographers and Typists	51	50	1	46	45	1
13.	Office machine operators	6	6	—	6	6	—
14.	Miscellaneous clerical workers	2,001	1,997	4	1,373	1,372	1
15.	Unskilled office workers	1,641	1,591	50	1,208	1,164	44
16.	Insurance and real estate salesmen, salesmen of securities and services, and auctioners	412	400	12	310	298	12
17.	Commercial travellers and manufacturers' agents	36	36	—	33	33	—
18.	Salesmen, shop assistants and related workers	1,795	1,760	35	1,380	1,368	12
19.	Money-lenders and pawn-brokers	13	13	—	5	5	—
20.	Farmers and farm managers	54	50	4	40	36	4
21.	Farm workers	4,641	3,619	1,022	305	298	7

1	2	3	4	5	6	7	8
22.	Hunters and related workers	26	24	2	—	—	—
23.	Fishermen and related workers	3	3	—	1	1	—
24.	Loggers and other forestry workers	136	135	1	123	122	1
25.	Well drillers and related workers	1	1	—	—	—	—
26.	Mineral Treaters	3	3	—	3	3	—
27.	Miscellaneous miners, quarrymen and related workers	1	1	—	—	—	—
28.	Deck officers, engineer, officers and pilots, Ship	3	3	—	3	3	—
29.	Aircraft pilots, navigators and flight engineers	10	10	—	10	10	—
30.	Drivers and firemen, railway engines	244	244	—	196	196	—
31.	Drivers, road transport	1,754	1,753	1	1,278	1,277	1
32.	Conductors, guards and brakesmen (railway)	52	51	1	51	50	1
33.	Inspectors, supervisors, traffic controllers and despatchers, transport	305	305	—	176	176	—
34.	Telephone, telegraph and related telecommunication operators	93	93	—	74	74	—
35.	Postmen and messengers	103	103	—	50	50	—
36.	Other workers in transport and communication occupations	320	320	—	197	197	—
37.	Spinners, weavers, knitters, dyers and related workers	2,221	1,734	487	1,090	1,000	90

1	2	3	4	5	6	7	8
38.	Furnacemen, rollers, drawers, moulders and related metal making and treating workers	606	498	108	246	223	23
39.	Precision instrument makers, watch makers, jewellers and related workers	795	792	3	477	476	1
40.	Tool-makers, machinists, plumbers, welders, platers and related workers	1,720	1,715	5	1,318	1,313	5
41.	Electricians and related electrical and electronic workers	278	278	—	243	243	—
42.	Carpenters, joiners, cabinet makers and related workers	1,835	1,815	20	653	648	5
43.	Painters and paper hangers	49	49	—	34	34	—
44.	Miscellaneous bricklayers, plasterers and construction workers	5,546	4,778	768	1,045	1,020	25
45.	Compositors, printers, engravers, bookbinders and related workers	110	105	5	106	101	5
46.	Potters, kilnmen, glass and clay formers and related workers	3,646	2,888	758	817	687	130
47.	Millers, bakers, brew masters and related food and beverage workers	1,125	1,033	92	672	642	30
48.	Chemical and related process workers	49	47	2	46	44	2

1	2	3	4	5	6	7	8
49.	Tobacco preparers and products makers	26	23	3	24	21	3
50.	Miscellaneous craftsmen and production process workers	383	330	53	203	170	33
51.	Testers, packers, sorters and related workers	161	146	15	159	144	15
52.	Stationary engine and excavating and lifting equipment operators and related workers	249	249	—	160	160	—
53.	Miscellaneous labourers	19,570	16,823	2,747	6,816	6,154	662
54.	Fire fighters, policemen, guards and related workers	3,517	3,506	11	1,648	1,644	4
55.	Waiters, bartenders and related workers	234	234	—	221	221	—
56.	Building, care-takers, cleaners and related workers	1,633	1,295	338	1,055	774	281
57.	Athletes, sportsmen and related workers	2	2	—	1	1	—
58.	Photographers and related camera operators	33	33	—	32	32	—
59.	Miscellaneous service, sport and recreation workers	24	23	1	23	22	1
60.	Unclassifiable	578	548	30	478	451	27
61.	Workers not reporting occupation	558	550	8	230	229	1

CHAPTER IX

ECONOMIC TRENDS

Before the opening of Gang Canal in 1927, only sand and sand dunes dotted the skyline of most parts of what is now Ganganagar district, except for a few green tracts in the present tahsils of Hanumangarh, Suratgarh and Bhadra. Famines frequently stalked the land, and cultivation, mostly dependent on meagre and erratic rains, was poor and sparse. Mostly coarse grains were grown for local use and the inhabitants barely made both ends meet by keeping herds of cattle, sheep and goats on pastoral lands.

A kaleidoscopic transformation of the area was brought about with the advent of the Gang Canal. The colony started feeding not only homo sapiems but also those living in other parts of the princely State. It relieved their distress when they were in the grip of famine and scarcity. Industries subsidiary to agriculture gradually sprang up. Railways and other means of communication expanded to serve increasingly the growing economic needs of the area. Partition of the country in 1947, causing an exchange of population, ushered in new concepts and practices of agriculture with the inflow of enterprising and hard-working immigrants. After the merger of the State into Greater Rajasthan in 1949, the State and the Central Governments embarked upon an elaborate programme of development of the area. The First Five Year Plan was initiated, setting in the development process designed to usher an era of economic prosperity of the district.

The area is quite rich in material resources, particularly in farm-produce and an efficient and enterprising manpower looks forward to their being put to gear for fuller exploitation and for the development of industries. Since adequate electricity is also available from Bhakhra, the district is destined to develop as an important industrial centre in the country. Though the area is well served by Railways, yet the road transport and other communication facilities need further improvement to meet the growing needs of its fast expanding economy.

LIVELIHOOD PATTERN

Ganganagar district, as mentioned earlier, is agriculturally the most advanced district of the State and agriculture has become the mainstay of the people.

Census, 1951

At the time of the 1951 Census, the district had a population of 6,30,130 persons (males 3,43,192 and females 2,86,938), of whom 14.4 per cent (90,913 persons) were living in urban areas while the rest, 85.6 per cent, were living in the rural areas.[1] As per Census figures, the district occupied 9th position among the districts of Rajasthan in respect of rate of growth of population during 1941-51. The growth in population was 2.8 per cent more than the average growth in Rajasthan. This growth in towns was 89 per cent while in rural areas it was only 11 per cent.'

The density of population, in that year, was 30 persons per sq. kilometre (77 persons per sq. mile). It was much below the average density in Rajasthan, as a whole, which stood at about 45 persons per sq. kilometre (117 person per sq. mile). In 1941, the density in the district was only about 25 persons per sq. kilometre (65 persons per sq. mile). The average number of persons per household in 1951 was 6 in the urban and 5 in the rural areas.

81.1 per cent (5,10,892 persons) of the total population were directly or indirectly earning their livelihood from agriculture. Excluding the absentee landlords, this percentage stood at 80.2. Of these the largest percentage i.e. 47.5 consisted of cultivators and their dependents who wholly or mainly owned their lands[2].

25.2 per cent of cultivators and their dependents, however, did not own the lands they tilled. The cultivating labourers and non-cultivating owners of land were only 7.5 per cent and 0.9 per cent respectively of the population.

The non-agricultural population accounted for 18.9 per cent of the total, and amongst them a large majority were categorised under 'Other services and miscellaneous sources,' forming 9 per cent of the entire population. Of the rest 3.7 per cent were dependents on industries, 5.7 per cent traders and 0.5 per cent were supported by transport industry.

In rural areas, agricultural classes formed 91.3 per cent of the total population and the rest depended on non-agricultural pursuits. Of the agriculturists 53.8 per cent were cultivators of their own land and their dependents while 28.1 per cent were tillers of land not their own and

1. *Census, 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar*, Part I, p. 11.
2. *ibid.*, p. 2.

their dependents. Cultivating labourers and their dependents formed 8.6 per cent and non-cultivating landlords 0 9 per cent of the rural population.

Of the non-agricultural classes, the largest number, constituting 4.9 per cent of the rural population, depended on 'Other services and miscellaneous sources'. Industrial classes came next, with 1.9 per cent of dependents, followed by trade with 1.8 per cent, while transport industry claimed 0.2 per cent of rural population deriving its livelihood from it.

Of the urban population, 10.8 per cent were owner-cultivators and 8.0 per cent cultivators of unowned lands including dependents in either case. The cultivating labourers and non-cultivating owners of land formed 1.4 and 0.9 per cent, respectively. The non-agricultural categories formed 78.9 per cent of the urban population. Of these 33.3 per cent were supported by 'Other services and miscellaneous sources,' while 28.8 per cent were dependents on trade and 14.4 per cent on industries. A mere 2.4 per cent of the urban population depended on transport industry for its livelihood.

Of the total population of the district, 1,795 males and 175 females (0.3 per cent) were classified as eonomically inactive, including persons who either earned their livelihood without any activity e.g. pensioners, stipend holders, receivers of rent from land or buildings or interest and also those whose activities were uneconomic in their nature, e.g. beggars, prostitutes etc.[1]

Census, 1961

The total population of the district was recorded as 10,37,423 (5,63,231 males and 4,74,192 females) in 1961, out of which 8,87,471 or 85.55 per cent were living in rural and the rest 1,49,952 or 14.45 per cent in the urban areas.[2] This represented a percentage increase of 64.64 over the 1951 population, the highest rate of increase among all the districts of Rajasthan and much higher than the State's average growth rate of 26.20 per cent. The growth rate in urban and rural areas was 64.94 per cent and 64.59 per cent respectively.[3] The density per sq. km. was 51 as against the all Rajasthan average of 60.

1. *Census, 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar*, Part I, p. 2.
2. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, pp. 15 & 19
3. *ibid.*, p. 87

The 1961 Census adopted a different concept of livelihood pattern and registered the means of livelihood followed by the working population only. The total number of non-workers as such, was separately recorded.

The livelihood pattern according to the 1961 Census is shown in the following table[1] :

(Number)

Occupational Category	Rural		Urban		Total	
	Males	Females	Males	Females	Males	Females
1. Cultivators	1,92,319	73,682	4,717	1,727	1,97,036	75,409
2. Agricultural Labourers	40,150	5,796	503	27	40,653	5,823
3. Mining Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and allied activities	1,029	29	302	6	1,331	35
4. Household Industry	6,451	1,741	1,435	255	7,886	1,996
5. Manufacturing other than household industry	4,052	991	7,163	292	11,215	1,283
6. Construction	8,027	1,648	2,372	97	10,399	1,745
7. Trade and Commerce	6,680	78	10,171	96	16,851	174
8. Transport, Storage and Communications	1,301	2	3,494	10	4,795	12
9. Other Services	13,441	1,290	13,840	1,229	27,281	2,519
10. Non-workers	2,05,731	3,23,033	40,053	62,163	2,45,784	3,85,196

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, pp. 167–169.

The table indicates that more than 60 per cent of the district population consisted of non-workers. Their percentage in the urban areas was 68 as against 60 in the rural areas. Similarly more than 81 per cent of female population consisted of non-workers as against 43 per cent of males. The ratio of workers to non-workers was higher for the male population as compared to the female population, both in the urban and rural areas.

Of the working population, more than half was engaged in the cultivation of land and a little more than one-tenth in agricultural labour. The male cultivators numbered 1,92,319 and 4,717 as against 73,682 and 1,727 females in the rural and urban areas respectively[1]. In other words, male cultivating population was approximately two and a half times of the female population both in the rural and urban areas. Similarly, the ratio of male agricultural labourers to their female counterparts stood at nearly 7 to 1 and 19 to 1 in rural and urban areas, respectively.

The next most important source after agriculture, providing livelihood to maximum number of persons in the rural areas, was Construction, engaging 8,027 males and 1,648 females, while in the urban areas 2,372 males and 97 females earned their livelihood from this source. Trade and Commerce occupied second place in order of importance in the urban areas, providing livelihood to 10,171 males and 96 females, while 6,680 males and 78 females of the rural population were engaged in activities connected with Trade and Commerce.

Mining, Quarrying, Livestock, Forestry, Fishing, Hunting, Plantations, Orchards and allied activities were pursued by a mere 0.02 per cent of the working population, i.e. by 1,058 persons (1,029 males and 29 females) in the rural areas and 308 persons (302 males and 6 females) in the urban areas.

Household industry provided employment to about 2.5 per cent of the total working population. The number of male and female workers so engaged numbered 6,451 and 1,741 respectively in rural areas and 1,435 and 255 in urban areas.[2] Thus it was about 5 times more in the rural areas than in the urban areas, indicating the relative importance of this source of livelihood in the two areas.

1. *Census of India 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 167.
2. *ibid.*, p. 168.

Manufacturing, other than household industry, for obvious reasons engaged more workers in the urban areas than in the rural areas. Their number stood at 7,455 (7,163 males and 292 females) in the urban and 5,043 (4,052 males and 991 females) in the rural areas[1]. In all, this source provided livelihood to more than 2 per cent of the working population (12,498 persons) of the district.

Various types of activities connected with Transport, Storage and Communications were pursued by only about one per cent (numbering 4,807) of the total strength of workers. The number of women workers in this field was insignificant, being only 12 in the whole of the district. This source was again more important for the urban working population, engaging 3,504 persons, than for the rural population, where only 1,303 persons were employed in these services.

Persons engaged in other services numbered 29,800 (27,281 males and 2,519 females) out of whom 14,731 (13,441 males and 1,290 females) were living in the rural areas and the rest 15,069 (13,840 males and 1,229 females) resided in the urban areas.[2]

ECONOMIC STATUS

Census, 1951

Of the total population of the district in 1951, 37.72 per cent (2,37,710 persons) were reported to be self-supporting. Earning and non-earning dependents, numbering 57,549 and 334,871, accounted for 9.13 and 53.15 per cent respectively of the total[3]. From amongst the agricultural classes, comprising 5,10,892 persons (2,75,413 males and 2,35,479 females), 37.8 per cent (i.e. 1,93,095 persons) were self-supporting, 10.1 per cent (51,565 persons) were earning dependents and the rest, 52.1 per cent (2,66,232 persons) non-earning dependents[4]. Further analysis of the Census figures of this category reveals that the highest percentage of self-supporters i.e. 38.38 per cent, were to be found amongst the owner-cultivators. Amongst the cultivators of land not their own and agricultural labourers, 37.78 per cent and 35.4 per cent respectively supported themselves. Only 7.43 per cent of the owner-cultivators, 9.75 per cent of cultivators of land not

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part II-A, General Population Tables*, p. 168.
2. *ibid.*, p. 169.
3. *Census 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar, Part I*, pp. 12–13.
4. *ibid.*, pp. 26–27.

owned by them and 10.09 per cent of agricultural labourers were earning dependents and the rest of the 54.19 per cent, 52.47 per cent and 54.51 per cent of these three categories respectively were non earning dependents. A high percentage of the non-cultivating owners of land, i.e. 65.44 per cent, were non-earning dependents and 27.39 per cent and 7.17 per cent were self-supporting and earning dependents respectively.

Of the non-agricultural categories taken together, 37.42 per cent were self-supporters, 6.02 per cent earning dependents and the rest 57.56 per cent non-earning dependents. 44.32 per cent of the self-supporters were earning their livelihood from 'other services and miscellaneous sources'. Out of the balance in this livelihood class, 50.44 per cent were non-earning dependents and only 5.24 per cent earning dependents. 34.76 per cent of the industrialists, i.e. producers other than cultivators, were self-supporting, 59.67 per cent non-earning dependents and a mere 5.57 per cent earning dependents. In the remaining two non-agricultural occupations, i.e. commerce and transport, the percentage, respectively, of self-supporters was 29.05 and 35.33, of non-earning dependents 67.77 and 62.75 while 3.18 per cent and 1.92 per cent were earning dependents in the two sectors.

Of the total number of 42,645 persons engaged in industries and services, 678 were employers, 16,708 employees and 25,259 independent workers[1].

SECONDARY MEANS OF LIVELIHOOD—Secondary means of livelihood to supplement their income were followed by 73,065 persons, out of which 52,552 earned supplementary income from agricultural operations and 20,513 from non-agricultural occupations[2]. Out of agricultural classes as a whole, 49,459 pursued agricultural activities and 14,743 non-agricultural activities as secondary means of livelihood.

Of the non-agricultural classes, 3,093 persons or 34.90 per cent earned supplementary income from agricultural operations and 5,770 persons or 65.10 per cent from non-agricultural occupations.

Census, 1961

Tables giving details of economic status of the population, based on 1961 Census figures, are not available, except for the relative strength

1. *Census, 1951, Rajasthan and Ajmer, District Census Handbook, Ganganagar*, Part I, p. 46.
2. *ibid.*, pp. 30–31.

of workers and non-workers. Their ratio was recorded as 2:3 for the entire population taken together, while for the male and female population separately these ratios came to nearly 5:4 and 1:2 respectively. The proportion of non-workers among females is higher in the urban areas than in the rural areas. The economic status of a larger part of the population is, apparently, that of dependents. The concept of dependents in the earlier Census Reports was changed to be denoted only by the proportion of workers to non-workers and hence the two data, strictly speaking, are not comparable.

Out of workers in the household industry, numbering 9,882 in the district, 433 were working as employees and the balance 9,449 were either employers or single or family workers[1]. Of the 77,640 persons at work in non-household industry, trade, business, professions or services, 5,889 were employers and 35,124 employees, while 29,863 and 6,764 were classed as single and family workers respectively[2].

SECONDARY MEANS OF LIVELIHOOD—According to the 1961 Census, out of a total of 2,72,445 cultivators in the district 7,323 persons were working for supplementary incomes. These nearly 2.5 per cent cultivators were engaged in secondary work, either in the household industry or as agricultural labourers. Similarly 230 persons or 0.5 per cent of those who were principally agricultural labourers and 735 persons or approximately 7 per cent of workers in household industry pursued secondary occupations with a view to supplementing their incomes[3]. Out of the remaining working population, engaged in non-household industry, trade, business, professions or services, 57,967 persons took up secondary jobs in household industry also[4].

An average cultivator of the canal area keeps himself engaged in tilling the soil for all the twelve months of the year. For this class, which forms the bulk of the rural population in the district, land cultivation and irrigation is the sole means of livelihood. The very idea of any trade other than farming is generally averse to their nature and they lack also the wherewithal or skill to take to any other profession. Nevertheless, some of members of the rural families do take up other subsidiary occupations to supplement their incomes, including rearing of livestock, sheep

1. *Census of India 1961, Vol. XIV, Rajasthan, Part II-B (i), General Economic Tables*, p. 154.
2. *Ibid*, p. 195.
3. *Census of India 1961, Vol. XIV, Rajasthan, Part II-B (ii), General Economic Tables*, p. 525.
4. *Ibid*, p. 564.

and goats, sale of milk and *ghee*, small commercial ventures, government and private service, realising rents of shops and houses etc.

PRICES

The variation in price level is a crucial factor in the economic situation of an area, as it affects not only the real incomes of different sections of society with its consequent impact on their standard of living but has a far reaching influence on the welfare of the community, as a whole. A distortion of the normal structural pattern of production and distribution results, if the movement of prices is abnormal and substantial.

No organised effort was made to keep a regular record of prices during the times of the princely State, though some data about prices of a few staple foodgrains which prevailed during each quarter of a year at *Nizamat* headquarters, were collected and published in the Reports on the Administration of the Bikaner State. The price-collecting agency was the Tahsildar and the data collected related to retail transactions in important *Mandis* of each *Nizamat*. The following table gives the prices of some staple foodgrains prevailing in the Ganganagar *Nizamat* in the last quarter of each year, from 1927-28 to 1938-39[1]:

(seers per rupee)

Year	Wheat	Millet	Gram	*Moong*	*Moth*	Barley	*Jowar*
1927–28	8	8	10	5	8	13	7
1928–29	8	8	7¼	5	6	11½	10
1929–30	16	16	15½	6¼	8	27	18
1930–31	25	25	24½	20	14	37	40
1931–32	12	18	21	11	15	27	20
1932–33	18	21	25	13	21	25	28
1934–35	15	17	23	12	18	26	26
1935–36	15	17	23	12	18	26	26
1936–37	12	12	19	8	14½	20	19
1937–38	18	16	14	7	16	21	20
1938–39	13	13	11½	8	9	17½	15

1. *Reports on the Administration of Bikaner State* from 1927-28 to 1938-39 (yearly volumes).

It will be observed that the prices of almost all the staple foodgrains remained stable during the years 1927–28 and 1928–29. Prices in Ganganagar division were reported to be lower than in other parts of Bikaner State, since the Canal irrigation had resulted in bumper crops in these years, as compared to the pre-canal period. From the beginning of the year 1929–30, due to the world-wide general trade depression a heavy slump in prices started which continued throughout the year. Prices of most of the staple foodgrains fell to about 30 per cent while *moth* and *moong* were affected to a somewhat smaller extent. The prices were at their lowest till the first quarter of the year 1931–32, when they started showing an upward trend. But the effects of depression had not disappeared and there was again a fall in prices though they did not touch the lowest ever level of 1930–31. There was a little rise during the few years that followed, till 1938, when downward trend was witnessed again in prices of all commodities except those of *moong* and *moth*, which showed a reverse trend to the extent of about 20 to 25 per cent as compared to the previous year.

The situation changed completely with the out-break of the Second World War in 1939. The out-break of hostilities created uneasiness in the markets all over India and the prices of essential commodities shot up to an unprecedented extent. Traders started indulging in profiteering and prices were unduly inflated by the vested interests. To check an undue rise in prices, the Maharaja's Government declared profiteering to be a cognisable offence, under the Defence of India Ordinance, 1939, made applicable in Bikaner State. All police officers, not below the rank of a head constable, were empowered to arrest, without warrant, any person against whom there was reasonable suspicion of profiteering. The ultimate object was to check prices only when they threatened to go beyond the levels, prevailing in other parts of India. Reasonable suspicion of profiteering, in the context of prices charged by an individual trader, implied that he was not to be allowed to exploit the conditions prevailing in the State. The ultimate authority, responsible for implementation of price control, was the Controller of Prices, a post held by the Inspector General of Customs and Excise by virtue of his office. *Nazims* and Revenue Officers of Ganganagar Division acted as authorities for their respective areas.

Due to disturbance in the normal trade channels that went with the abnormal conditions created by War, during the years 1939–40 and 1940–41, the price level continued to show an upward trend. Though no record of prices prevailing in the Ganganagar area is available in the

Administration Reports, after the year 1938–39, the average prices for the whole of Bikaner State highlight this tendency, as would be evident from the following table[1] :

(In *Seers* and *Chhatanks* per Rupee)

Year	Wheat 1st Quality		Wheat 2nd Quality		Gram		*Bajra*		*Guar*		Sugar 1st Quality		Sugar 2nd Quality		Sugar *Danedar*	
	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.	Sr.	Chh.
1939-40	9	5	10	0	9	10	9	3	11	15	2	5	2	7	2	10
1940-41	9	0	9	7	11	5	13	13	14	13	2	9	2	13	2	10
1941-42	6	8	6	13	8	4	8	0	10	1	1	15	2	3	2	1

Since there was no ban on export of foodgrains in the neighbouring States and the Punjab, stocks available in their *Mandis* checked the abnormal rise in prices, which, however, were sometimes fluctuating. The State Government, therefore, did not think it feasible to introduce any kind of price control. The situation was not so easy in 1941–42 and the prices started shooting up. Rigid measures for controlling supply, movement and prices of foodgrains and other essential commodities were adopted and control orders, on the lines of those in force in British India, were promulgated[2].

By a Notification, the people were also directed not to hoard foodgrains beyond 60 maunds (22.39 quintals) for a family of 5 persons. Inspite of these measures, the prices of agricultural produce in 1941–42 were generally three times higher than their pre-war levels.

Prices continued to rise further and resulted in stringent controls. A post of Director of Civil Supplies was created in June 1943, when the control machinery was also reorganised. A Central Purchasing Agency was set up at Ganganagar to control the movement of foodgrains.

1. *Report on the Administration of Bikaner State* for 1939–40, 1940–41 & 1941–42, p. 41.
2. The following control orders were promulgated:
   (1) The Foodgrains Control Order, 1942, (2) The Foodgrains (Futures and Options Prohibition) Order, 1942, (3) Essential Articles Control Order, 1942, (4) Cotton Cloth (Control) Order, 1943, (5) The Bikaner State Motor Spirit Rationing Order, 1941, (6) The Tyre Rationing Order, 1942, (7) Bleaching Powder & Chlorine Control Order, 1943.

The upward trend of prices during the War was expected to come down, as was experienced in the post-First War period. But on the contrary, the years which followed, further aggravated the price-situation. The first major factor responsible for this, was the influx of refugees and the emigration of Muslim population from the area in large numbers. It put the price front under a double strain, in the form of a suddenly inflated demand for agricultural commodities and shortfall in their production. But this rise in prices was not confined to agricultural produce alone, nor was it merely a local phenomenon. The inflationary tendencies had set in the whole of the country and affected the entire range of commodities. The devaluation of the rupee in 1949, further aggravated this trend.

With the initiation of concerted developmental effort in the country, under the First Five Year Plan in 1951, specially on food front, coupled with generally favourable natural conditions for agriculture, the prices, during the first four years of the Plan, showed a downward tendency. The following table gives the retail prices of foodgrains, calculated on the basis of monthly averages, prevailing at the district headquarters, during the years 1952–56[1]:

(Rupees per maund)

Year	Wheat	Barley	Gram	*Jowar*	*Bajra*	Maize
1952	15.75	11.54	13.34	12.27	14.98	Not reported
1953	15.58	10.28	14.94	10.14	12.37	10.70
1954	13.77	7.64	10.35	8.61	9.70	9.41
1955	13.31	6.35	9.56	7.37	8.94	8.81
1956	15.12	10.22	10.90	12.67	19.28	11.82

Barring a few exceptions, the downward trend of prices continued till 1955. The process was, however, reversed in 1956, the year by which the effects of heavy developmental expenditure under the Plan and deficit financing had started showing effects.

The Second Five Year Plan of the country, which was in the nature of an industrial Plan, envisaged even higher total outlay and deficit financing. Nature too became less bountiful than it was during the First Plan period; the situation, accordingly, deteriorated on the food front.

1. *Statistical Abstract, Rajasthan*, 1958, p. 90

Crops failed in most parts of the State during this period and prices started shooting up. There was a reduction in the area under food crops and a shift towards cash-crops, due to their increased demand on account of growing industrialisation. In 1960–61, however, prices registered a fall due to good harvest in the case of almost all foodgrains except gram but it was a temporary phenomena, as the strains reappeared in the very next year.

The following table shows the retail prices of important foodgrains, during the years 1957–62[1]:

(Rupees per quintal)

Year	Wheat	Barley	Gram	*Jowar*	*Bajra*	Maize
1957	41.77	30.44	30.54	30.70	37.99	33.81
1958	48.82	33.44	34.37	34.64	35.90	37.11
1959	48.23	32.74	33.62	40.56	42.76	41.53
1960	44.56	32.20	37.67	42.60	40.19	36.25
1961	46.08	31.51	39.09	37.44	42.12	35.85
1962[2]	51.84	32.35	42.14	37.51	41.62	41.62

After May 1962, the Board of Revenue, Rajasthan discontinued collection of the retail prices of foodgrains. Wholesale prices of certain foodgrains viz. wheat, barley and gram and a few other commodities, prevailing in important *Mandis* of the district, are being collected by the Marketing Section of the State Agriculture Department, every fortnight. The average monthly prices[3] of wheat, barley and gram in the Ganganagar *Mandi* during 1963, 1964 and 1965 were as under:

(Rs. per quintal)

	January 1963	July 1963	January 1964	July 1964	January 1965	July 1965
Wheat (Farm)	45.30	43.91	59.67	63.96	[illegible]	58.62
Barley	25.00	29.18	34.76	47.00	[illegible]	52.57
Gram	38.97	38.81	50.36	55.7[illegible]	80.15	69.21

1. *Statistical Abstract, Rajasthan*, 1962, p. 136 & 1963 p. 98
2. Based on average for 5 months, January to May 1962.
3. Source : Office of the Marketing Officer, Agriculture Department, Rajasthan, Jaipur.

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Except for a short period, during the first few months of 1963, when the bright crop prospects showed their effect on the markets, a recurring upward trend in prices of all the foodgrains was discernible, which almost continues ever since.

WAGES

An annual record of average wage-rates prevailing in the princely State of Bikaner, as a whole, is found in the Administrative Reports of the State for various years. No information about the wages paid for different types of work is, however, available. The rates of wages from 1926-27 onwards are given in the following table[1] :

Year	Wage rates per day Rs. As. ps.	Rs. As. ps.	
1926-27	0 - 5 - 0 to	1 - 8 - 0	(31 paise to Rs. 1.50)
1928-29	0 - 5 - 0 to	1 - 8 - 0	(31 paise to Rs. 1.50)
1929-30	0 - 4 - 0 to	1 - 4 - 0	(25 paise to Rs. 1.25)
1930-31	0 - 4 - 0 to	1 - 0 - 0	(25 paise to Re. 1)
1931-32	0 - 4 - 0 to	1 - 0 - 0	(-do-)
1932-33	0 - 4 - 0 to	1 - 0 - 0	(-do-)
1939-40	0 - 2 - 0 to	0 - 5 - 0	(12 paise to 31 paise) Semi-skilled worker
	0 -12 - 0 to	1 - 4 - 0	(75 paise to Rs. 1.25) Skilled worker
1941-42	0 - 3 - 0 to	0 -10 - 0	(19 paise to 62 paise) Semi-skilled worker
	0 -12 - 0 to	1 - 8 - 0	(75 paise to Rs. 1.50) Skilled worker
1942-43	0 - 8 - 0 to	1 - 0 - 0	(50 paise to Re. 1.00) Semi-skilled worker
	1 - 4 - 0 to	2 - 0 - 0	(Rs. 1.25 to Rs. 2.00) Skilled worker
1945-46	1 - 0 - 0 to	1 - 8 - 0	(Re. 1.00 to Rs. 1.50) Semi-skilled worker
	2 - 0 - 0 to	3 - 0 - 0	(Rs. 2.00 to Rs. 3.00) Skilled worker

1. *Reports on the Administration of Bikaner State*, for various years.

The agricultural prosperity brought about by the Gang Canal, gave a spur to wage rates in the area. The wage-earners consisted mostly of agricultural labourers, who were drawn to the Canal Colony when their own area could not engage them, either due to a crop failure or during the off season. From 1926-27, rural population was mainly engaged in Gang Canal works and inspite of bad crops and drought conditions in that year, the dearth of employment was not felt and wage-rates continued to be steady. In 1930-31, wages fell by about 25 per cent, on account of a slump in prices. With the declaration of famine conditions in August 1939, in the whole of Bikaner State except in 1,804 sq. miles (4,672 sq. km.) of the Gang Canal Colony and a sudden and abnormal rise in the prices of food articles, wages offered particularly at works started in the Relief Camps, were raised, so as to make them commensurate with the bare necessity of the labourers. The concept of a minimum wage seemed to emerge in the minds of the officials, responsible for these relief works, benefiting particularly the persons, who could not put in enough work to earn minimum famine wages due to physical inability or age. They were offered the minimum wages, at the sanctioned rate. Simultaneously, the system of task in place of *Amani* was introduced to induce and this enabled fit and healthy labourers to earn more. This marked the introduction, for the first time, of payment according to work, in place of time-wages, in the area.

With an abnormal and unprecedented rise in prices, with the outbreak of the Second World War, wages started going up and touched the all time record of Re. 1 to Rs. 1/8 As. (Re. 1 to Rs. 1.50) for an unskilled, and Rs. 2 to Rs. 3 for a skilled labourer. The demand and opportunities for work offered to the labourers, particularly the skilled workers, had expanded due to war efforts and it was essential to make them more remunerative.

But wages, though following prices, always lag behind the latter, more so when the labourers do not have organised trade unions and the employers are in a position to exploit them on account of their weak bargaining position. In order to safeguard the interests of labour, the Government of India took up the issue of fixing a bare minimum payable to a worker, to enable him to have a reasonable living. The Minimum Wages Act was passed by the Central Parliament in 1948, providing for statutory minimum rates of wages, fixed by the State Government, for various categories of work. The Act has been made applicable to the whole of Rajasthan in respect of certain scheduled jobs. All those employed on hire or reward to do any work, skilled or unskilled, manual or clerical,

are entitled to the statutory minimum rates of wages, which are revised every five years or earlier, on the basis of the advice of a committee, specially constituted for the purpose.

The Act has fixed higher wages for agricultural labour, for the Canal area of Ganganagar district. The present (1965–66) minimum wages, fixed for various employments are as follows[1]:

S. No.	Nature of Employment/ Establishment	Minimum Wages
1	2	3
1.	Woollen carpet making or shawl weaving establishments	Adult Rs. 45 p. m. Child Rs. 37.50 p. m.
2.	Rice mills, flour mills or *Dal* mills	Unskilled labourer Rs.60 p.m.
3.	Tobacco (including *Bidi* making) manufacturing	Rs. 1.50 per 1000 *Bidis*
4.	Oil mills	Adult Rs. 45 p.m. or Rs. 1.50 per day Child Rs. 37.50 p.m. or Rs. 1.25 per day
5.	Local authority	Rs. 60 to Rs. 65 p. m.
6.	Construction or maintenance of roads or building operations	Unskilled labourer Rs. 60 to Rs. 65 p.m.
7.	Stone breaking or stone crushing	Unskilled labourer Rs. 60 to Rs. 65 p. m.
8.	Mica works	Unskilled labourer Rs. 60 p.m.
9.	Public Motor Transport	Unskilled labourer Rs. 60 p.m.
10.	Salt Industry	Rs. 45 p.m. (a) Manufacturing operations Rs. 1.75 per day per adult worker, inclusive of weekly days of rest. (b) Extraction and Storage. Re. 0.85 per 100 cft. (i) Minimum guaranteed time rate Rs. 2.00 per adult, inclusive of weekly days of rest.

1. Source : Office of the Labour Commissioner, Rajasthan, Jaipur.

1	2	3
		(ii) Minimum time rate for unloading and picking impurities Rs. 1.75 per day for adult worker, inclusive of weekly days of rest. (iii) Disabled persons Rs. 1.50 per day, per adult worker. (c) Dispatch Operations : (i) Cutting & filling Rs. 6.31 per 156 bags or 145 quintals, or Rs. 2 per day. (ii) Weighing and loading into wagons Rs. 12.31 per 156 bags or 145 quintals, or Rs. 2 per day. (iii) Sewing Rs. 1.75 per day per adult worker, inclusive of weekly days of rest. (d) General Rs. 1.75 to Rs. 2.50 per day per adult worker inclusive of weekly days of rest.
11.	Wool cleaning and Pressing factories	Unskilled labourer Rs. 60 p.m.
12.	Cotton-ginning & pressing factories	Unskilled labourer Rs. 60 p.m.
13.	Printing presses	Unskilled labourer Rs. 60 p.m.

The minimum wages for agricultural labour, in the Canal area of Ganganagar district were fixed as follows :

1.	Male	Rs. 75.00 p.m.
2.	Female	Rs. 60.00 p.m.
3.	Child	Rs. 1.50 per day

At present, the consumer's price indices are being prepared for Jaipur, Ajmer and Beawar only. The Mathur Committee examined the whole issue and recommended the preparation of such indices for working classes in Ganganagar also, with a view to linking the dearness allowance with the cost of living. The State Government has accepted this recommendation and the Directorate of Economics and Statistics, Rajasthan is engaged in the work of preparing consumer's price index numbers for Ganganagar.

STANDARD OF LIVING

The first-ever study about the living standards, through family budgets of the people of the area, seems to have been undertaken during the Census operations in 1931[1]. A few selected cases of small and average holders of land, in the *Nizamats* of Suratgarh and Ganganagar along with a few others from other *Nizamats* of Bikaner State, were taken up for the study of the nature of agricultural operations. Due consideration was given to, what the Census Report states as "the danger of cultivators understating their income and over-estimating their expenditure." Though the method of selecting an average case may not have been satisfactory, according to the present day specialised technique of sampling, the conclusions drawn were revealing. The average yearly gross agricultural incomes of a family of 3 members in Suratgarh *Nizamat* and of 7 members in Ganganagar *Nizamat*, were assessed to be Rs. 100 and Rs. 375 respectively. As against this, the agricultural expenditure on seeds, cattle, payment of agricultural rent etc. amounted to Rs. 76 and Rs. 450 respectively in the two areas. The expenditure on food and clothing, for the families in the two areas, was estimated at Rs. 90 and Rs. 220 respectively. Thus it was concluded, that even after four years of canal irrigation, the essential nature of agricultural operations persisted to be uneconomic. The subsidiary income being insignificantly meagre and the extra-ordinary expenditure on marriages, deaths and other occasions being heavy on account of social obligations, an average cultivator continued to be under a heavy burden of mounting debts and had to struggle hard to keep his body and soul together.

The Assessment Report of the First Regular Settlement of the Gang Canal Colony, prepared in 1946 by Rai Sahib Beharilal, Revenue Commissioner of Ganganagar Division in the then State Government, confirmed the conclusion regarding low standard of living of the inhabitants, inspite of about two decades of agricultural boom. The following observations about the standard of living and consumption habits of the area are relevant[2] :

1. Das, Sarangadhar, *Bikaner*, States Peoples Conference, Bombay, p. 106.
2. Behari Lal, Rai Sahib, *Assessment Report of the First Regular Settlement of Gang Canal Coloy*, 1946.

"Even the new *abadis*[1] do not give a good look and mostly mud houses have been built. In a few cases, rich families who have migrated from the Punjab and settled down in the Colony, have built big bungalows and well-ventilated houses on modern lines. Sanitation, in any accepted form of the word, is practically non-existent in the Colony... The general standard of living is at present low. The old settlers take simple diet consisting of cereals such as *Bajri*, wheat, *Bajhar* and *Gohani*. The Jats are very fond of taking *Rabri* (concoction of *Chhach* and *Bajri* cooked together) in the morning and *Khichri* made of *Moth* and *Bajri*, in the evening. *Kadhi*, prepared with grain flour and *Chhach*, is also a favourite dish of the Jats in the evening. Generally *Chapatis* are gulped on with *Chhach*. In rare cases these are flavoured with *Dal* and *Sag* (vegetable). *Ghee* is rarely used except by well-do-do people. Animal diet is rarely used by Hindu Jats, since they are by habit and custom mostly vegetarians. Some Mohammedans do take meat, specially on the occasion of marriages etc., and occasionally in the winter. The Sikh immigrants from Punjab use *Ghee*, curd and milk. They take meat also. The diet menu of the people does not usually consist of green vegetables and fruits. These articles are considered a sort of luxury by *Zamindars*. *Sarson-ka-sag* is a favourite dish with the Punjabi in the winter."

"The *Zamindars* are not generally well-clad and wear home-spun *Khaddar*. The old inhabitants (males) use *Dhoti*, *Tehmad*, *Kurta* and *Pagri*. On the other hand, the Punjabi peasants generally use *Pajama*, *Kurta* and *Pagri* of *Khaddar*, muslins and *latha*. Silk is used on marriages and certain ceremonial occasions only."

"Great lavishness is exhibited by the people on marriages and obsequial feasts and expenditure on these occasions is largely responsible for indebtedness of the people", observed the Report. It continued to remark, "The people are unsophisticated and simple in their habits. Their standard of living is low, though in case of an average Punjabi, it is a bit higher than the old *abadkars*." The report suggests, "The Standard of Living does need being raised and the best means of effecting this is by spreading of education and inculcating the principles of self-help."

1. A new *Abadi* signified a rural residential colony planned after the advent of Gang Canal.

Since the time the above remarks were made by Rai Sahib Beharilal, things have definitely changed for the better. Steep rise of prices of agricultural commodities, the support that the Government have been extending to provide means and incentives for greater production, development programmes with a bias on rural regeneration, and the abolition of all intermediaries as a measure of land reforms, have definitely resulted in bettering the economic well-being and living standards of the rural population. With improved means of communication, the concept of rural self-sufficiency has been disappearing. Signs of urbanisation are distinctly noticeable and the spread of educational and medical facilities have made the people conscious of a fuller and a richer life. A radio, a couple of terylene shirts and modern type of shoes, are things which an average peasant could be expected to possess. The urban population is still comparatively better off, enjoying, as they do, greater earning opportunities and amenities of life available in towns.

EMPLOYMENT

As stated before, the district of Ganganagar is predominantly agricultural, where the soil and climate are suitable for cultivation of various crops, as water is made available from canal irrigation. Accordingly the bulk of the population i.e. about 79 per cent of the economically active part of it, is engaged in agriculture, either as independent cultivators or agricultural labourers. Among the non-agricultural occupations, manufacturing industries account for a major part. There are two big industrial units, viz. the Ganganagar Sugar Mills Ltd. and the Sadul Textiles Ltd. The Central Mechanised Farm at Suratgarh, the biggest agricultural farm of its type in the whole of Asia, and the offices of Rajasthan Canal Project and Gang Canal, provide ample employment opportunities. The extension of educational and medical facilities and various Plan-schemes have also added to the employment potential of the area. Consequently, the total employment in the district has been steadily increasing. As against the total employment of 15,720 persons at the end of the year 1962–63, it was estimated that 19,303 and 21,071 persons were employed in non-agricultural occupations on 31st March of 1964 and 1965 respectively. The employment in the Public Sector is naturally increasing at a faster rate due to the development programmes undertaken by the Government.

The information about the employment market of the area is made available by the Employment Market Information unit of the District

Employment Exchange, through periodical reports, prepared on the basis of information collected by, what is known as, Establishment Reporting System, whereby the employers submit quarterly returns about persons employed by them. No special study about the employment market trends and development of future possibilities has, however, been undertaken. The Central Small Industries Organisation, during a Small Scale Industrial Area Survey for assessing the industrial potential of the district, considereds the trends and possibilities of the shift of working population from agriculture. According to the report of this Survey[1], "The people of the district, particularly those having migrated from Punjab, are hard-working and interprising .....Though they are not acquainted with complicated and precision techniques, because of initiative and enterprise they do hold out promise of being enterpreneurial class for furture development of industries." The report has pointed out a shortage of technical skill for future industrial development. It says, "Skilled labour, such as turners fitters, foremen, mechanists etc. are in short supply and the existing industries rely on neighbouring districts of Punjab and U. P. for meeting the requirements. However, there is no shortage of skills like carpentry and blacksmithy..."

Apart from the engineering skill, other personnel found to be in short supply, are stenographers, typists, camel *sawars*, coal coolies, washermen, cooks, compounders and science teachers. With the opening of new Basic Training Schools, the shortage of trained teachers is not felt now. As against this, educated personnel having qualifications between matriculation and degree standard in Arts, were found to be in surplus. They mostly comprise persons who usually lack any kind of professional training. Certain amount of unemployment amongst the casual labourers occurs, during the slack season of the Sugar Mill and cotton-textile industry. The following table, giving the number of vacancies notified to the Employment Exchange and vacancies filled during the years 1962–63 to 1965–66, clearly brings out the fact that skilled workers are in short supply[2] :

1. *Small Scale Industries Area Survey Report*, Central Small Industries Organisation, p. 10.

2. *Annual Reports on the Ganganagar Employment Market Area*, 1962–63 to 1965–66, Directorate of Employment, Rajasthan, Jaipur.

(Number)

Occupation	1962-63		1963-64		1964-65		1965-66	
	Vacancies notified	Vacancies filled	Vacancies notified	Vacancies filled	Vacancies notified	Vacancies filled	Vacancies notified	Vacancies filled
1. Professional, technical and related workers	775	663	1,189	550	779	589	660	382
2. Administrative, Executive and managerial workers	16	15	128	73	57	19	66	30
3. Clerical and related workers	470	239	661	339	749	424	825	442
4. Farmers and related workers	39	4	101	41	140	20	190	46
5. Workers in transport and communication occupations	36	12	43	18	40	20	71	8
6. Craftsmen and others	219	7	299	17	248	8	403	252
7. Service, sports and recreation workers	92	32	199	84	95	31	189	66
Total	1,647	972	2,620	1,122	2,108	1,111	2,323	1,226

Nature of the jobs sought by applicants at the exchange is borne out by the following table :

(Number)

Occupational Classification of applicants	1960	1961	1962	1963	1964
Industrial management services	—	2	—	—	—
Skilled and semi-skilled services	5	9	321	133	107
Clerical services	734	34	58	15	2
Educational services	36	19	38	43	64
Domestic services	10	10	33	15	12
Unskilled services	500	600	862	505	354
Others	295	1,224	913	989	1,302
Total	1,580	1,898	2,225	1,700	1,841

The percentage of women in jobs has also been on an increase. It was 3.57 on 31st March 1965 as against 3.23 on the same day of the year 1963. Women had taken up 3.27 per cent of the jobs, by the end of the year 1965-66, their number having gone up to 701 from 666 in 1964-65. More women find employment in the public sector than in the private sector. In the public sector, majority of them are employed in educational, medical and health institutions while in the private sector, they find jobs in construction works and other services.

Training

The Industrial Training Institute, Ganganagar, started since 1st August 1963, has a capacity to train 16 persons in each of the four trades, viz. fitting, pattern making, moulding and the electricians course. Each of these courses is of a duration of two years. Training in welding, sheet metal fabrication etc. can cater to the local demand for various types of skill. Agricultural graduates are now available from the Sangaria Agricultural College. As observed earlier, trained teachers, except for Science subjects are available in sufficient numbers due to the opening of new Teachers Training Schools.

Employment Exchange

There was no Employment Exchange in the area during the times of the princely state, or for that matter, till 1956. For the first time an Employment Exchange started functioning at Ganganagar in November 1956, as a district unit of the Directorate of Labour and Employment, Government of Rajasthan. Its main job being to bring about co-ordination between the efforts of the employers in finding suitable employees and of job-seekers to find suitable assignments, it also studies the trends in the employment market of the area. The District Employment Officer is in-charge of the Exchange and is assisted by one Junior Employment Officer, one upper division clerk, three lower division clerks and two class IV employees.

The following table gives the number of candidates registered and placed through the Employment Exchange during various years[1] :

(Number)

Year	Registrations	Placements	Applications on live register at the end of the year
1962–63	5,533	980	1,349
1963–64	5,142	1,121	1,481
1964–65	5,910	1,186	1,809
1965–66	5,902	1,225	3,434

Thus, on an average, four to five hundred candidates call at the Employment Exchange, every month, to get themselves registered, but only about one-fifth of them are helped in being placed at work.

Under the provisions of the Compulsory Notification of Vacancies Act, all employers, both in the public and private sectors, employing 25 or more persons, are required to notify all vacancies occurring in their establishments to the Employment Exchange. During the years 1962, 1963 and 1964, monthly average number of employers using the services of the Exchange was 269, 316 and 405 respectively. The total number of vacancies notified by the employers to the Employment Exchange during the years 1962-63 to 1965-66 was as follows[2] :

1. Source : Directorate of Employment, Rajasthan, Jaipur.
2. Source : Directorate of Employment, Rajasthan, Jaipur,

(Number)

Year	Vacancies notified
1962-63	1,647
1963-64	2,620
1964-65	2,108
1965-66	2,323

The following table gives a classification of the vacancies according to types of employers[1] :

(Number)

Year	Vacancies	Central Government	State Government	Quasi-Government	Private
1960	Notified	188	1,295	352	33
	Filled	31	835	266	11
1961	Notified	119	1,603	426	71
	Filled	33	833	254	6
1962	Notified	113	945	454	25
	Filled	23	595	208	6
1963	Notified	97	1,214	539	301
	Filled	37	802	149	22
1964	Notified	122	1,326	481	254
	Filled	23	1,027	334	28

It will, thus, be observed that although the services of the Employment Exchange are being increasingly used by private employers, it is mostly the Governmental agencies which recruit candidates tor the jobs under them, through the Exchange.

1. *Statistical Abstract, Rajasthan*, yearly volumes, 1960 to 1965,

PLANNING AND DEVELOPMENT

As mentioned earlier, prior to the formation of Rajasthan, the most ambitious of the development schemes in this area, was the completion of Gang Canal, a part of the Sutluj Valley Project, which transformed it from a desert to a blooming tract. The then State Government took keen interest in the all-round development, particularly in agriculture, of the Ganganagar area. An agriculture farm was opened at Ganganagar, in 1936, at a cost of Rs. 1.39 lakhs. The farm undertook experiments for improving production of cotton, wheat and sugarcane. The results of these experiments were explained and conveyed to the cultivators on specially celebrated Cultivators' Days. Co-operative movement had been initiated in the area, with the passing of the Co-operative Societies Act in 1920. A Land Mortgage Central Co-operative Bank was opened at Ganganagar in 1930 and a Co-operative Union at Bhadra provided loans for agricultural development. The Banking Enquiry Committee of 1929 made important suggestions in the field of credit which were mostly implemented. Industrial and mineral development, including the revival and encouragement of cottage industries was looked after by a Department of Commerce and Industry.

A Five Year Programme for the whole of the State of Bikaner, prepared in 1942-43, included a special development scheme for Ganganagar division and it related to rural uplift, industrial and agricultural developments, through the use of the latest scientific methods and machinery, improvement and extension of education, technical and industrial training, improvement of public health through the extension of medical aid and better sanitary conditions, improvement of water supply arrangements and other matters of vital concern to the welfare and progress of the people. A Rural Reconstruction Commissioner looked after the work of development in the rural areas.

The State of Bikaner was merged into the Greater Rajasthan union in 1949. As Ganganagar district held the prospects of producing surplus foodgrains to feed other parts of the State, agricultural development continued to engage the special attention of the Rajasthan Government. Besides, several cottage industries, cotton ginning and processing and other small scale industries were set up, which, to some extent, also helped in the refugee rehabilitation. State assistance was liberally provided for their growth.

Community Development

The Community Development was launched in the district on October 2, 1952, with the opening of the Raisinghnagar Block. The main object of this programme was to instil in the minds of the people, consciousness for planned development and to bring about an economic and social transformation of rural areas. Direct public participation in the development programmes of the area is secured through their elected representatives. The programme thus presents a unique example of self-help through the State assistance and technical guidance.

More Blocks were opened during the years, following the initiation of the programme so that at the time of launching of the scheme of Democratic Decentralisation on October 2, 1959, there were in all seven Blocks. Two more blocks were opened in 1961-62 and 1962-63. The following table shows, at a glance, various features of the Community Development Blocks in the district[1].

Block	Year of opening	Stage on 31.3.65	Area covered (Sq.km.)	Villages covered (Number)	Rural Population served ('000)
1. Bhadra	1961-62	I	1,746	109	85
2. Hanumangarh	1956-57	II	2,002	149	116
3. Mirzewala	1962-63	I	862	260	114
4. Nohar	1960-61	I	4,307	162	110
5. Padampur	1957-58	II	839	237	85
6. Raisinghnagar	1952-53	Post II	4,582	466	123
7. Sadulshahr	1959-60	I	1,520	127	93
8. Karanpur	1954-55	II	818	240	88
9. Suratgarh	1957-58	II	3,771	139	79

Planning

FIRST FIVE YEAR PLAN (1951-56)—When Rajasthan embarked on the formulation of its First Five Year Plan, the needs of all its districts, including Ganganagar, were taken into consideration, though no district-wise allocation of outlays was made. Two Community Development Blocks, viz. Raisinghnagar and Karanpur, were opened during the period of the First Plan, in Ganganagar district.

1. *Statistical Abstract, Rajasthan*, 1965, p. 238.

SECOND FIVE YEAR PLAN (1956-61)—The Second Five Year Plan, unlike the First, was prepared on the basis of the district plans, which, in turn, accommodated the district plans judiciously. The district plans were first prepared in 1957-58 and every year thereafter, continued to be accepted as integral parts of State planning[1].

The aggregate and sector-wise expenditure on district schemes only, during the Second Plan period was as follows[2] :

(Rupees in lakhs)

Sector	Expenditure
1. Agriculture	17.16
2. Consolidation of Holdings	4.39
3. Animal Husbandry	0.91
4. Co-operation	11.36
5. Forests and Soil Conservation	10.77
6. Fisheries	Not recorded
7. Community Development and National Extension Services	42.44
8. Irrigation	658.54
9. Power	149.46
10. Industries	9.31
11. Mineral Development	Not recorded
12. Roads	Not recorded
13. Education	43.71
14. Medical & Public Health	6.11
15. Ayurved	0.91
16. Water Supply	19.63
17. Housing	12.59
18. Labour & Labour Welfare	0.54
19. Social Welfare	1.50
20. Publicity	1.19
21. Statistics	0.21
22. *Mandis*	34.50
Total	1025.23

1. *Second Five Year Plan Progress Report, Rajasthan*, 1956-61, p. 45,
2. *ibid.*, pp. *LXXXIII–LXXXV*.

Thus during the five-year period, a total of Rs. 1,025.23 lakhs was spent exclusively on schemes operating in the district. This expenditure was the highest total expenditure in any district of Rajasthan. The per capita expenditure during the whole Plan period, as per 1961 Census figures, works out to be Rs. 113.01, which was second highest in the State, next only to Rs. 133.87 in Kota district. Apart from this there were schemes beneficial to the State as a whole, including multi-purpose projects like the Bhakhra-Project and also expenditure on professional colleges etc., which though operating in the district, had State-wide benefits. The expenditure on headquarters schemes for the planning and execution of the total plan programme, as also the schemes which though operated in the district but district-wise details of expenditure on which could not be available, are not included in the above. No account has also been taken of schemes directly administered by the Central Government, for which details are not available.

During the Second Plan period, four new Community Development Blocks viz., Hanumangarh, Padampur, Sadulshahr and Nohar, were opened and the earlier two opened during the First Plan were set apart for intensive development. They were converted into Panchayat Samitis under the scheme of Democratic Decentralisation introduced on 2nd October, 1959. A mechanised farm, the first of its type in the country, was started at Suratgarh in collaboration with the U.S.S.R. on 15th August, 1956. With the commissioning of the grid station at Ganganagar, the district started receiving power from Bhakhra-Nangal Hydel Project on 15th January 1960. In order to train more officers for implementation of irrigation schemes and running and maintenance of canals, batches of engineers were sent to Gang and Bhakhra Canals for on-the-spot instructions.

An Industrial Estate was constructed at Ganganagar in 1962. The total road length had reached the figure of 686 km. (426 miles) at the end of the Second Plan as against only 233 km. (145 miles) at the end of the First Plan. A sum of Rs. 5.25 lakhs, under the Low Income Group Housing Scheme, to build 187 houses and a further sum of Rs. 4.23 lakhs, under the Middle Income Group Housing Scheme, for the construction of 15 houses, were disbursed during the period. Another 250 houses were constructed under the Industrial Housing Scheme.

Other major achievements, in physical terms, during the Second Five Year Plan period were as follows[1] :

1 *Panch-Varshiya Yojnya Mein Pragati, Ganganagar* (Folder), Directorate of Economics & Statistics, Rajasthan, Jaipur, pp. 1-2

Head	Unit	Achievements
1. Agricultural Programmes		
A. (a) Distribution of improved varieties of seeds	Tonnes Tons	1,05,689 1,04,220
(b) Distribution of fertilisers	Tonnes Tons	9,155 9,010
(c) Distribution of manures	Tonnes Lakh Tons	4,33,852 4.27
(d) Distribution of improved implements	Number	32,670
B. Land Reforms		
(a) Digging of pits for manuring	Number	4,700
(b) Land made culturable	Hectares Acres	2,003 4,950
C. Irrigation and Water supply		
(a) Wells dug	Number	21
(b) Repair and deepening of wells	Number	4
D. Public Co-operation-Amount received	Lakh Rs.	59.40
E. Co-operation		
(a) Societies	Number	1,060
(b) Membership	Number	47,710
(c) Co-operative Agricultural Societies	Number	60
(d) Membership	Number	1,122
2. Irrigation		
(a) Irrigation from Bhakhra Project Works completed	Hectares Acres	87,934 2,17,290
(b) Irrigation on the completion of schemes under the Second Plan	Hectares Acres	2,30,671 5,70,000
3. Power[1]		
(a) Power Houses	Number	3
(b) Electricity generated	Lakh Kwh	2.12
(c) Towns and villages electrified	Number	19

1. Figures relate to the year 1960-61

Head	Unit	Achievements
4. Industries and Minerals		
(a) Credit advanced to Cottage and Small Scale Industries	Lakh Rs.	3.56
5. Roads		
(a) Roads constructed and repaired	Km. Miles	402 250
6. Social Services		
(a) Medical & Health Services		
Ayurvedic Hospitals opened	Number	12
Primary Health Centres opened	Number	5
Family Planning Centres opened	Number	4
Malaria Eradication Parties	Number	1
(b) Water Supply[1]		
Cities provided with the facilities	Number	5
(c) House-building		
Loans to Low Income Group	Lakh Rs.	5.25
Loans to Medium Income Group	,,	4.23
Expenditure under Industrial Housing Scheme	,,	7.33
(d) Labour and Employment		
Employment Exchange opened	Number	1

THIRD FIVE YEAR PLAN (1961-66)—The country had already experienced a decade of planned economic development, when a comparatively bolder Third Five Year Plan, was launched in 1961-62.

It envisaged a much higher expenditure for the developmental schemes in the district than in the first two. The District Plan was prepared by the Zila Parishad, in consultation with the Panchayat Samitis of the area.

The sector-wise expenditure incurred during the Third Five Year Plan period is given in the following table[2] :

1. Figures relate to the year 1960-61.
2. *Tratiya Panch Varshiya Yojna, Pragati Prativedan*, 1961-66, Directorate of Economics and Statistics, Rajasthan, Jaipur, pp. 235-240.

(Rs. in lakhs)

Sector	Expenditure
Agricultural Programmes	
1. Agriclutural Production	24.53
2. Minor Irrigation	12.76
3. Soil Conservation	9.07
4. Animal Husbandry	10.93
5. Forests	8.00
6. Warehousing and Marketing	0.40
Co-operation and Community Development	
1. Co-operation	12.91
2. Community Development	41.69
3. Panchayats	6.58
Irrigation and Power	
1. Irrigation	163.58
2. Flood control	231.51
3. Power	Not recorded
Industries and Mining	
1. Village and Small Industries	7.27
Transport and Communications	
1. Roads	151.95
Social Services	
1. General education and Cultural programmes	60.35
2. Modern Medicine	28.66
3. Ayurved	0.76
4. Water Supply	13.64
5. Housing	7.65
6. Welfare of Backward classes	1.43
7. Social Welfare	0.83
8. Labour and Labour Welfare	2.56
Miscellaneous	
1. Statistics	0.20
2. Information and Publicity	0.67
3. Others (*Mandis*)	33.48
Total Plan Expenditure on District Schemes	831.41

After the inauguration of the Democratic Decentralisation, the district development plans are being prepared at the level of the Zila Parishad, in consultation with the Panchayat Samitis, but the scope of developmental activity is not restricted to these local plans only as it covers other schemes of State importance like the Rajasthan Canal and Bhakhra Irrigation Projects. Moreover the rising tempo of agricultural and industrial activity, through the headquarters schemes of the departments concerned, has also to be taken into account.

A sum of Rs. 831.41 lakhs was spent in Ganganagar for district schemes during the period of the Plan. On the basis of 1961 population figures, the per capita plan expenditure in the district, worked out at Rs. 80.16 as against the all-Rajasthan average of Rs. 105.35 during the period and Rs. 113.01 for the district during the Second Plan period.

In addition to the above expenditure, a sum of Rs. 106.62 lakhs was spent during the Third Plan period under various schemes, implemented for the development of the area commanded by the Rajasthan Canal[1]. Another Rs. 1.35 lakhs were spent on the centrally sponsored schemes relating to agriculture in Suratgarh area. Besides, the district also benefited from various State-schemes and some other works completed during the period.

In terms of targets achieved, the whole of the district had been covered by the Community Development Scheme by 1962. In order to increase agricultural production, intensive agricultural development programme, commonly known as Package Programme, was extended to wheat, *Sarson*, *Rai* and cotton crops in Ganganagar, during this Plan period. Water supply schemes were extended to cover the towns of Nohar, Hanumangarh, Karanpur, Raisinghnagar, Sangaria and Rawatsar. The development of an adequate road system was viewed as a necessity and by the end of 1965-66, a total of 1324 km. of roads covered the district. Loans granted[2], under the Low-Income Group and Middle-Income Group Housing Schemes, amounted to Rs. 2.37 lakhs and Rs. 8.46 lakhs respectively during this period. The construction of Rajasthan Canal, which in years to come will be the pride of the nation, progressed well and water was let off into Naurangdesar on 11th October 1961.

Other major achievements, accomplished through the works undertaken at the Panchayat Samiti-level, during the period of the Plan, are given in Appendix.

1. *Tratiya Panchavarshiya Yojna, Pragati Prativedan*, 1961-66, Directorate of Economics and Statistics, Rajasthan, Jaipur, p. 83.
2. ibid., p. 310.

APPENDIX

Physical Achievements of Panchayat Samitis in Ganganagar District during Third Five Year Plan[1]

Particulars	Unit	1961–62	1962–63	1963–64	1964–65	1965–66	Total
Chemical fertilisers distributed	Quintals	34,385	59,294	85,621	1,24,484	73,261	3,77,045
Seeds distributed	,,	24,152	23,535	23,016	42,961	37,605	1,51,269
Agricultural-Implements distributed	Number	19,904	20,733	20,957	22,779	16,821	1,01,294
Area of land enclosed	Hectares	2,553	15,652	7,092	7,424	3,414	36,135
Agricultural demonstrations	Number	600	654	1,388	691	441	3,774
Fruit-Plants distributed	,,	26,379	39,702	19,617	15,489	1,478	1,02,665
Wells dug for irrigation	,,	12	5	28	8	1	54
Area brought under irrigation	Hectares	—	355	628	82	887	1,952
New Co-operative Societies started	Number	60	43	38	9	12	162
New Members of Co-operative Societies enrolled	,,	9,065	4,827	4,447	2,567	2,513	23,419
Drinking water-wells dug	,,	10	81	16	7	64	178
Libraries & Reading rooms started	,,	13	2	82	—	55	152
Adult Education Centres started	,,	490	295	496	262	271	1,814
Adults made literate	,,	3,188	988	6,675	5,039	4,909	20,799
Houses constructed under Rural Housing Scheme	,,	65	21	11	68	9	174
Kutcha Roads built	Km.	15.09	4.43	2.02	7.05	13.47	42.36
Public Co-operation received	Rs. in Thousands	890	725	902	509	500	3,526

1. Source : Office of the Commissioner, Development and Panchayat Department, Rajasthan, Jaipur.

CHAPTER X

GENERAL ADMINISTRATION

For purposes of General Administration, the district of Ganganagar has been divided into five sub-divisions and twelve tahsils[1]. Ganganagar sub-division comprises of one tahsil only of the same name; Karanpur sub-division consists of Padampur and Karanpur tahsils; Raisinghnagar sub-division is made up of Anupgarh and Raisinghnagar tahsils; Hanumangarh sub-division is constituted by Hanumangarh, Suratgarh, Sangaria, Sadulshahr and Tibi tahsils; while Nohar sub-division is formed of Bhadra and Nohar tahsils.

Historical Background

With the advent of the Gang Canal, Ganganagar which was named after its headquarters which it self was named after the then ruler, came into existence alongwith many other towns and villages. The tahsil headquarters were shifted from Mirzewala to the new town. Canal irrigation increased the importance of the area from the point of view of greater revenue work and a separate Revenue Division called Ganganagar Division headed by a Revenue Commissioner was created in early 1927. In 1928, Ganganagar Division was constituted of Ganganagar, Raisinghnagar and Suratgarh *Nizamats*. Karanpur and Ganganagar tahsils formed Ganganagar *Nizamat*;tahsils Raisinghnagar, Anupgarh and Padampur constituted Raisinghnagar *Nizamat;* while Suratgarh *Nizamat* consisted of tahsils Suratgarh and Hanumangarh. The head of the *Nizamat* was styled as *Nazim* while that of tahsil as Tahsildar. In 1935, Nohar and Bhadra tahsils which till then formed part of the Bikaner Division, were transferred to Ganganagar Division and were placed under Suratgarh *Nizamat*. This change was not found administratively suitable hence these two tahsils were again transferred to Bikaner Division. Between 1938 to 1948, the designation of the Divisional head was changed several times but before reorganisation in 1948, the head of the Division had come to be called as Commissioner and the head of the *Nizamat* as *Nazim*. In 1948, the administrative set up was reorganised by creation of the posts of Deputy Commissioners and Assistant Commissioners on the pattern of the Punjab. By this arrangement, each district was headed by a Deputy Commissioner

1. Till 1965, the district had nine tahsils.

and each sub-division by an Assistant Commissioner who as a subordinate officer was responsible to the Deputy Commissioner of his district. The heads of tahsils continued to be designated as Tahsildars and worked under the concerned Assistant Commissioners. On administrative grounds tahsils Nohar and Bhadra were again transferred from Bikaner to Ganganagar Division in the same year i.e. 1948. The set up of the Ganganagar Division immediately before the merger of the Bikaner State with Rajasthan, was as under:[1]

Name of division	Names of districts	Names of sub-divisions	Names of tahsils
Ganganagar	1. Ganganagar	1. Ganganagar	1. Ganganagar
			2. Karanpur
		2. Raisinghnagar	1. Raisinghnagar
			2. Padampur
			3. Anupgarh
	2. Hanumangarh	1. Suratgarh	1. Suratgarh
			2. Hanumangarh
		2. Nohar	1. Nohar
			2. Bhadra

After merger, Ganganagar Division was abolished in August, 1949 and was converted into a district forming part of Bikaner Division headed by a Divisional Commissioner. It then consisted of five sub-divisions namely, Ganganagar, Karanpur, Raisinghnagar, Hanumangarh and Nohar. The head of the district was designated as Collector and that of sub-division as Sub-Divisional Officer. Each sub-division consisted of one or more tahsils, the actual number depending on the administrative convenience. The head of the each tahsil continued to be styled as Tahsildar. This set-up continued to function till 1961 when the post of the Divisional Commissioner was abolished and most of the functions of that office were transferred to the Collectors of the respective districts. In 1964, the posts of Commissioners for Bikaner and Jodhpur were created and designated as Border Commissioners but their functions were confined to the supervision of law and order situation and the police department in their region. The Civil Defence Programme was also placed under their charge and the Commissioners were primarily required to maintain liaison with military authorities in thier areas. They were also required to exercise general supervision and control over the revenue

1. Source : The Collectorate, Ganganagar

officers including Collectors. This arrangement worked for a very brief period and the office of the Border Commissioner, Bikaner was abolished in May, 1966. Consequently, most of his duties were again transferred to the concerned Collectors of his area.

Present Pattern

As stated above, the district consists of five sub-divisions and twelve tahsils. At the head of the district administration is the Collector while sub-divisions and tahsils are headed by Sub-Divisional Officers and Tahsildars respectively.

The Collector is the pivot round which the district administration revolves. He is required to function in various capacities. In his capacity as Collector of Land Revenue and other Government dues, he is responsible for the implementation and enforcement of the Land Revenue Act, 1956, and the rules made thereunder, the Rajasthan Tenancy Act, 1955, and various other Land Laws. The Collector is mainly responsible for collection of land revenue on behalf of the State Government through the revenue staff consisting of Sub-Divisional Officers, Tahsildars, *Naib*-Tahsildars, *Girdawars* and *Patwaris*. It is on his recommendation that suspension or remission of land revenue in a bad season is ordered. He is the custodian of land in possession of the Government including water and trees, and at the same time he is required to safeguard the rights and interests in land conceded to or acquired by members of the public. Besides, he is also responsible for collection of fees and taxes under various other Acts viz., Irrigation Act, Indian Stamps Act, Indian Court Fees Act etc. In a number of cases, departmental dues have been statutorily made realisable as arrears of land revenue and the Collector has to enforce their recovery.

As a District Magistrate, he alongwith the Superintendent of Police is responsible for the maintenance of law and order in his area. Prior to the separation of judiciary from the executive in the year 1962, he was functioning as head of the magistracy for administration of criminal justice but now, he and the executive magistrates under him, no longer try offences committed under the Indian Penal Code. They are, however, responsible for enforcing the provisions of the preventive sections of the Criminal Procedure Code and other Special Acts. The District Magistrate is only empowered to hear appeals in these and in discharging this function he is assisted by one Additional Collector & Additional District Magistrate. There are five Sub-Divisional Magistrates, one Assistant Collector and Magistrate and twelve Tahsildars cum Magistrates conferred with Second or Third Class Magisterial powers.

In the field of fiscal administration, he functions as the head of the Government treasury in the district and is responsible for its general administration, for due accounting of all monetary transactions, for the correctness of treasury returns submitted to the Government and to the Accountant General from time to time, and for the safe custody of valuables kept therein. The day-to-day working of the treasury is, however, looked after by the District Treasury Officer at the District Headquarters and Sub-Treasury Officers (who are Tahsildars) at the tahsil level.

The Collector in his capacity as District Development Officer, has an important role to play especially after the implementation of the scheme of Democratic Decentralisation in the year 1959. He has to co-ordinate all the developmental activities in the district and to ensure that all the schemes are executed according to the targets laid down. For this purpose he attends Zila Parishad and Panchayat Samiti meetings in his jurisdiction. The actual execution of developmental schemes in the district has been entrusted to the Vikas Adhikaris assisted by a team of technical personnel representing different development departments but working under the guidance of Panchayat Samitis. The Collector is assisted in this task by a Deputy District Development Officer at the district level and Vikas Adhikaris at Panchayat Samiti level. The Deputy District Development Officer is also the ex-officio secretary of the Zila Parishad. A meeting of all the District Level Officers is also held once in every three months to discuss the programmes and achievements and to solve difficulties encountered. These meetings provide a unique opportunity for co-ordinating development work in the district.

Besides the aforesaid primary functions, the Collector has been entrusted with multifarious other responsibilities. As the State control was extended to plying of transport and other vehicles the Collector was made responsible for their registration. He as the District Registrar looks after the registration of documents, witnesses transfer of movable property and as the Collector (Supplies) ensures the procurement and distribution of essential supplies. He is authorised to render immediate help in floods and famines to the suffering people. He as the District Magistrate implements the provisions of the Indian Arms Act by granting licenses for arms and ammunitions. He is also responsible for rehabilitation of refugees and as District Election Officer has to make arrangements for elections of the Members of Parliament, the State Legislature and local bodies.

In the procurement and distribution of essential supplies, which is necessitated by their inadequate availability, the Collector

is assisted by a District Supply Officer, with his subordinate staff. To help him perform his other functions there are different sections in the Collectorate manned by suitable personnel who assist the Collector in various ways in the proper and efficient discharge of his duties. For proper functioning in the Collectorate, the work has been divided in ten sections viz., (i) Judicial Section, (ii) Establishment Section (iii) Section dealing with District Revenue Accounts, (iv) General Section, (v) Land Records Section, (vi) Accounts Section, (vii) Revenue Section, (viii) Section dealing with Case Work, (ix) Panchayat and Development Section and (x) Records Section. The staff of the Collectorate consists of an office superintendent, one stenographer, one district revenue accountant, 14 upper division clerks, and 21 lower division clerks. This excludes the strength of the staff in the Land Records Section, which consists of one *sadar kanungo*, one assistant *sadar kanungo*, one lower division clerk (typist) and six *Patwaris*. Various officers of the Collectorate have been given immediate charge of these sections and are directly responsible for their day-to-day working to the Collector. There are separate offices of District Supply Officer and Assistant Collector, Zamindari & Biswedari Abolition. The strength of the office of District Supply Officer consists of one District Supply Officer, one Assistant District Supply Officer, one Enforcement Officer, one enforcement inspector, one accountant, six upper division clerks and four lower division clerks. In the office of the Assistant Collector (Zamindari & Biswedari) there are four upper division clerks and four lower division clerks besides one Assistant Collector. Thus the Collector continues to occupy the pivotal position in the administration of the district and its general development.

Directly subordinate to the Collector in the vertical line of administration are Sub-Divisional Officers who are five in number and are headquartered at Ganganagar, Karanpur, Raisinghnagar, Hanumangarh and Nohar. The Sub.Divisional Officer has all the powers of an Assistant Collector in the sub-division under the Rajasthan Land Revenue Act, 1956 and Tenancy Act, 1955 and the powers of Sub-Divisional Magistrate under the Code of Criminal Procedure. Besides, he also exercises executive powers as and when delegated to him by the Collector. The range of administrative functions performed by a Sub-Divisional Officer in his area are almost the same as those performed by the Collector in the district. The strength of the staff of his office consists of a reader, a judicial clerk, a revenue clerk, a cashier and a typist.

Under the Sub-Divisional Officers are the Tahsildars in the verticle line of administration. They are stationed at each tahsil head-

quarters in the district. Their main executive functions are the collection of land revenue, keeping its accounts and maintaining and bringing upto date the land records work. The tahsildar is also incharge of the Sub-Treasury located at the tahsil headquarters. For criminal work, he is vested with Second or Third Class Magisterial powers but can exercise them only within the scope of the Code of Criminal Procedure. Under the Registration Act, 1953 he has the power of a Sub-Registrar and registers such documents as are compulsorily registrable under the Registration Act, 1953. In this work, he is assisted by one or more *Naib*-Tahsildars according to the work load. One reader, one accounts clerk and one lower division clerk, constitute the staff of his office.

Each tahsil is furthur divided into *Girdawar* circles under the charge of a revenue inspector, which are further sub-divided into *Patwar* circles known as *Patwar Halkas* and are supervised by a *patwari*. Their number depends upon the quantum of work and the extent of the area. In 1967, the district of Ganganagar was divided into 43 *Girdawar* circles and 505 *Patwar* circles.[1] The duties of *Girdawars* are combined with those of *Naib*-Tahsildars in the canal irrigated area while in *Barani* area they are required to check the work of *Patwaris*. The *Patwari* is required to maintain all the registers pertaining to land and performs all the functions laid down in the Rajasthan Land Records Manual. He is also entrusted with the duty of reporting any untoward happening in his area to his higher authorities immediately. The collection of land revenue is also done at his level. *Patwar Halka* thus is the basic unit of district administration.

In the horizontal line of administration, the Superintendent of Police and District and Sessions Judge occupy important offices. Maintenance of law and order is equally the responsbility of the Superintendent of Police who is required to work in co-operation with the District Magistrate. In the district, he is assisted by an Additional Superintendent of Police, three Deputy Superintendents of Police, seven inspectors, fifty sub-inspectors, 39 assistant sub-inspectors of police in addition to a number of head-constables and constables. The District & Sessions Judge who is the highest Judicial authority in the district presiding over the court which is the highest court of appeal for both civil and criminal matters in the district is assisted by one Civil & Additional Sessions Judge and one Civil and Assistant Sessions Judge at Ganganagar, one Civil Judge and Magistrate First Class at Suratgarh and one Civil & Assistant Sessions Judge

1. Source : Colletorate, Ganganagar.

at Hanumangarh. There are also three *Munsif* Magistrates headquartered at Ganganagar, Hanumangarh and Bhadra. Other officers in the horizontal line of administration include the district heads of departments like agriculture, animal husbandry, co-operation, industries, mines and geology, forest, irrigation, power, education, social welfare, public works etc. These departmental officers have assumed greater importance after Independence and have started playing their due role in the district administration and its development.

A list of District Officers of the State Government is given below :

1. District & Sessions Judge, Ganganagar
2. Additional Collector & Additional District Magistrate, Ganganagar
3. Superintendent of Police, Ganganagar
4. Deputy District Development Officer, Ganganagar
5. Assistant Collector (Jagir), Ganganagar
6. District Supply Officer, Ganganagar
7. Treasury Officer, Ganganagar
8. Executive Engineer Rajasthan State Electricity Board, Ganganagar
9. Executive Engineer, Public Works Department (Buildings and Roads), Ganganagar
10. Executive Engineer, Public Works Department (Buildings and Roads), Mandi Division, Hanumangarh
11. Executive Engineer, Irrigation, Hanumangarh
12. Superintending Engineer, Irrigation, Ganganagar
13. District Agriculture Officer, Ganganagar
14. District Agriculture Officer, Hanumangarh
15. District Industries Officer, Ganganagar
16. Inspector of Schools, Ganganagar
17. Cotton Botanist, Ganganagar
18. Assistant Collector and Magistrate, Ganganagar
19. Chief Executive Officer, Ganganagar Sugar Mills, Ganganagar
20. District Medical and Health Officer, Ganganagar
21. District Excise Officer, Ganganagar
22. Commercial Taxes Officer, Ganganagar
23. Assistant Registrar, Co-operative Societies, Ganganagar
24. Public Relations Officer, Ganganagar
25. District Probation-cum-Social Welfare Officer, Ganganagar
26. District Animal Husbandry Officer, Ganganagar
27. Medical Officer, Incharge, National Malaria Eradication Programme Unit, Ganganagar

28. District Employment Officer, Ganganagar
29. District Statistician, Ganganagar
30. Conservator of Forests, Hanumangarh
31. Assistant Engineer, Water Works, Hanumangarh
32. Deputy Superintendent, Jails, Ganganagar
33. Assistant Regional Transport Officer, Ganganagar
34. Labour Inspector, Ganganagar

Besides, technical staff consisting of Superintending Engineers, Executive Engineers and Assistant Engineers, is stationed in the district for the execution of Rajasthan Canal Project and the maintenance of Bhakra Canal and Ghaggar Canal and their distributaries within the district. Office of the Assistant Colonisation Commissioner, Rajasthan Canal Project is located at Hanumangarh.

In addition to the State Government Offices, many Central Government Offices also function in the district, such as; Income Tax Offices of Ward A, B, C, D; Office of the Field Publicity Officer; Office of the District Organiser, National Savings Scheme; Office of the Deputy Superintendent, Central Excise and Customs; Office of the Managing Officer cum Settlement Officer, Offices of the Central Plant Protection Officers; Office of the Superintending Engineer (Telephones); Office of the Post Master, Head Post Office and Station Master etc. All these offices are located at Ganganagar.

The organisational set up including the strength of staff of office covered in horizontal line of administration along with the functions of each of these departments has also been dealt with elsewhere in this volume.

CHAPTER XI

REVENUE ADMINISTRATION

LAND REVENUE ADMINISTRATION

Historical Aspect

Little is known of the Revenue Administration of this area before the advent of Rathors in the last two decades of the fifteenth Century. This dynasty was founded in Bikaner by Rao Bika in 1488 A.D. and at that time most of the territory was under the occupation of various Jat tribes. They appear to have organised themselves into communities forming what may be called, joint or land-lord villages, in which the original settlers or their descendants claimed all the land, around the village. The boundaries of these villages were more or less definitely recognised.[1] The area was, for facilities of cultivation, held in separate possession by the various families descending from the original settlers who had in the first instance divided it roughly into more or less equal portions or *Pattis*, one or more of which were assigned to the family of each settler. Early Rathor rulers thought it prudent to recognise and maintain this system.

It is probable that during the early period of Rathor domination the rulers laid no claim to the proprietorship of land but subsequently during the 16th and 17th centuries, they started exercising this right when their authority on this vast, sandy and unproductive land got consolidated.

In Akbar's time Ajmer was made a *Subah* comprising 7 *Sarkars* and 197 *Parganahs*.[2] The *Subah* was formed of Mewar, Marwar, and Harouti, comprising *Sarkars* of Ajmer, Chitaurgarh, Ranthambhor, Jodhpur, Sirohi, Nagaur and Bikaner of which Ganganagar district was the northern most part. The total revenue of this *Subah* was Rs. 72,10,308 including the revenue of Bikaner *Sarkar* containing 11 *Mahals* amounting to 47,50,000 *Dams*. Revenue was collected both in cash and kind by an officer called *Amil*. Separate break-up of revenue figures for the tract now forming this district have not been recorded.

1. *Report on the Administration of the Bikaner State*, 1893-94, p. 75.
2. Jarrett, H. S. and Sarkar, J. N. (Ed.), Abul Fazl-i-Allami, *Ain-i-Akbari*, Vol. II, 1949, pp. 273-282.

In the beginning of the eighteenth century, the methods of assessment varied considerably in different regions during different reigns, and no single categorisation could be applicable to the whole of the area now forming this district. The method most commonly followed was that assessment was fixed for each cultivator after measuring his holding every second or third year. The rent called *Hasil* or *Rakm* was assessed in cash or kind per bigha or per field cultivated and the revenue each holding was paid by the cultivator along with the cesses which were fixed without any reference to the area of land held. If an increase or decrease in the area under cultivation occurred between two assessments the rent was not altered till the next measurement. In the absence of a fixed lump sum assessment the Government benefited by an yearly increase due to breaking of fresh soil by new cultivators or suffered a loss by a decrease in the cultivated area on account of abandonment by the old. Occasionally, a share of the produce, either by actual divisions or *Batai*, or by appraisement or *Kankut*, was realised, instead of, and sometimes in addition to a cash rent.

Another method employed was lump sum assessment annually fixed for the whole village. It was locally known as *Ijara*. Under this system, the *Choudharis* or village headmen and cultivators measured each individual holding separately, with the exception of holdings of *Choudharis* and a few petty officials who rendered customary services to the village. The whole village having been thus assessed, was handed over to a person, whom the Government wanted to favour, on what was known as *Ijara* system. The man holding the *Ijara*, collected the revenue and paid it to the State after deducting the collection fees. A person holding several villages on this system was, therefore, quite an influential man and enjoyed great social prestige.

A different method of assessment was in vogue for the then sandy tract of Ganganagar. The revenue was collected on a system called *Anga Bach*, which had least connection with the area held or cultivated.[1] It was a combination of rates on ploughs and cattle with a poll tax and some additional items. The demand was assessed housewise, as follows[2] :

(i) *Halgat* @ Rs. 3 per bullock plough and Rs. 5 per camel plough

1. *Report on the Administration of the Bikaner State*, 1893-94, p. 82.
2. *ibid.*

(ii) *Anga* @ Rs. 1.75 per bullock, Rs. 1.25 per cow, Rs. 1.50 per buffalo and Rs. 3.50 per camel

(iii) *Dhuan* (Smoke) or house tax Rs. 2.50 per house

(iv) *Rakhwali* or protection fee of Rs. 2 per house

(v) *Pagri* or poll tax Rs 1.25 per adult male

The rates of taxes differed considerably from village to village and were collected by *Choudharis* from the cultivators in addition to the regular demand payable by them. *Choudharis* were appointed by the *Havildars*, the local officers responsible for collecting revenue from *Hakumats* or tahsils. *Choudharis* were allowed some share of the collected money. Sometimes, at the instance and instigation of the *Havildars*, the *Choudharis* compelled the cultivators, having no ready money with them, to obtain it on loan from the *Bhora* or local trader who in turn was in a position to extract as much amount as he could from the cultivator hard pressed to pay in time his dues to the State. The *Havildars* paid fixed amount to the State exchequer and kept the surplus with them.

A tax known as *Bhunga*, or grazing fee was realised from the owners of the cattle coming from other villages to graze in the land meant for this purpose, at the rate of four annas per cow, eight annas per buffalo and one rupee per camel.

Land Tenures

In considering the nature of the tenure under which the cultivators in *Khalsa* and *Patta* or Jagir villages held the land, a distinction must be drawn between villages, which were in existence before the Rathor occupation, and those founded subsequently; as a majority of *Khalsa* villages fell under the latter category. In the villages coming under the former category the *Thakurs* or Jaghirdars who replaced the joint landlords still respected the right of the first breaker of soil and his heirs.

Most of the *Khalsa* villages were situated in the Suratgarh *Nizamat* and in tahsil Bhadra and Rajgarh. They were all founded within the previous 150 to 200 years, majority of them being in the *Khalsa* area. In 1818 A.D. with the help of British forces the tract round about Bhadra was also converted into *Khalsa* area. The founding of villages in the *Khalsa* area was heralded by appointing the *Choudharis*

on payment by them of a heavy fee called *Nazrana*. They had no right of ownership but were state officers with certain powers vested in them. Their duty was to settle cultivators, to bring waste land under plough and to realise dues from the tillers on behalf of the State. With the permission of *Choudharis*, new cultivators could appropriate and break-up land for cultivation on payment of an induction fee (*Haqq Daul*) of rupee one with the permission of *Choudharis* who were allowed to hold a certain area of land rent free for the performance of these duties and to realise and appropriate certain dues such as tributes at marriages, weighment fee etc., from cultivators. It indicates that in comparison to other cultivators, the *Choudharis* enjoyed better and superior status as in addition to being cultivators, they were also servants of the State. They had considerable authority and power which was sometimes abused in imposing illegal and irregular exaction on the cultivators. In the Suratgarh *Nizamat*, in addition to rent or *Rakm* or *Hasil* and cesses due to *Raj*, they frequently collected from each cultivator money under the name of *Mulba* or village expenses, and it was shared between the *Choudharis* and the local *Raj* official or *Havildar*, who usually connived at this malpractice. The actual founding of a new village was known as *Morigarhna* or *Ropna*.

In the less populated parts, north of Ghaggar, a resident cultivator was allowed to occupy any area of land and thereby acquire heritable rights in land.

Zamindari System in Tibi villages

Zamindari system of land tenure prevailed in the Tibi *Parganah* or tract when it was awarded by the British Government to the Bikaner State in lieu of the services rendered by the latter at the time of the Mutiny in 1857. It continued even after the transfer till 1880 when a new settlement took place due to the desire of the Bikaner State to enhance the assessment rates fixed by the British Government. The cultivated area per bigha was assessed at Rs. 0–3–9 (three annas and pies nine), which was later reduced to three annas only. The rate of assessment of *Bhunga* or house rent was rupees three per house. Two important cesses, *Lhassva* and *Kurar* continued as before, and the State received the income from *Sajji* growing and grazing fee as well. The period of settlement was ten years, which was later on reduced to five years.

Settlement of 1884-86

In 1884 A.D. it was decided to undertake Summary Settlement of *Khalsa* villages of the State in order to improve upon the existing system

of revenue administration which suffered from a number of defects. There was no uniform policy for realisation of land revenue for the whole of the former Bikaner State. The State had to bear the loss whenever a cultivator abandoned his holding or left the village. No proper records were maintained. The assessment was also fluctuating. There was no proper management of unoccupied waste lands, and no effort was made to reclaim them.

Summary Settlement operations were carried out under the supervision and control of Munshi Sohan Lal, the then Revenue Officer of the State. The object of Summary Settlement was the measurement of the area and assessment of land revenue. The settlement applied practically to all the then existing *Khalsa* villages of the state with the exception of those in the Anupgarh tahsil as it was at that time held in Jagir. This Settlement was completed in 1886 and introduced for a period of five years but subsequently exended to eight years.

Survey and Assessment

Prior to the assessment of land revenue the area of each village was measured and the village and field boundaries were marked on a map. The Summary Settlement changed the principle of assessment as each village was assessed at a lump sum for the payment of which the *Choudharis* became responsible jointly, the extent of responsibility of each was fixed by his existing shares in the *Chaudhar* of the village[1]. The sum assessed on the village was calculated by applying to the cultivated and waste areas of the village, rates, which were considered to be suitable. They did not generally vary from village to village but were uniform throughout an assessment circle i.e. a sub-division of a tahsil made for assessment purposes. The unoccupied waste was assessed after deduction of one-third or one-fourth of its area, and occupied waste was assessed at a higher rate as compared to unoccupied waste. For purposes of assessment the tahsils were divided into circles or sub-divisions. In the fixation of assessment the total collection of previous ten years was kept in view.

The rate proposed for the assessment of revenue for the then Bhadra, Nohar, Hanumangarh, Mirzewala and Suratgarh tahsils were as follows[2] :

1. Fagan, P. J., *Report on the Summary Settlement of Bikaner*, p. 27.
2. *Report on the Administration of the Bikaner State*, 1893-34, p. 88.

Tahsil	Circle	Cultivated (Annas-Pie)		Waste (Pie)
1. Bhadra	*Tal*	3	3	6
	Tal Tiba	3	0	6
	Tiba	2	6	6
2. Nohar	—	2	9	6
3. Hanumangarh	I	4	0	8
	II	3	9	6
	III	3	6	6
4. Mirzewala	I	3	9	6
	II *Utradh*	2	0	3½
5. Suratgarh	*Utradh*	2	0	3½
	Dhora	1	9	3

Rates were per bigha which was equal to 5.8 of an acre in tahsil Hanumangarh and tahsil Mirzewala Circle I-II, elsewhere it was equal to .37 of an acre.

In the Suratgarh *Nizamat*, the assessment was made subject to progressive increases which were to take effect during a period of five years fixed as the term of the Summary Settlement. It was anticipated that a large area would be brought under cultivation. The difference between the rates fixed for cultivated and waste land was then applied to the prospective annual increase in cultivated area calculated for each village, and the sum obtained was taken as the annual increase to be made in the lump-sum assessment of the village.

Position of Choudhari

As a result of the Summary Settlement the status of the *Choudhari* was changed from that of an official rent collector to that of a farmer. He was no longer allowed to collect rent as he liked or eject tenants at his will. He was only permitted to collect rent at fixed rates from the cultivators for land entered in the measurement papers. He could no longer hold any rent-free land. In lieu of withdrawal of these privileges he was to receive an allowance of 5 per cent or *Pachotra* on the fixed assessment of his village, provided, the dues were deposited fully by the due date. He had no right in the land.

The revenue income of *Khalsa* villages of the State increased under the terms of the Summary Settlement. Average of five years income of the State, previous to the Summary Settlement, was Rs. 3,14,921. After the Summary Settlement the revenue collected was Rs. 4,06,932 thereby increasing it by Rs. 92,011 a year.. Remissions on a large scale were granted to the people every year because the tract suffered from a series of bad agricultural seasons.

The Settlement, however, was not free from defects. There was no uniform policy adopted for the whole of the State. On account of frequent migration of cultivators, the State had to lose a substantial revenue. In the absence of proper administration of waste land, the State lost revenue on this account also. Nevertheless, the Summary Settlement resulted in considerable improvement of the revenues.

On the completion of Settlement, Patwaris and *Girdawars* were appointed for collecting revenue from the cultivators. Superior local officers like Tahsildars and *Nazims* supervised their work.

First Settlement of 1894–95

The first regular settlement was made by P. J. Fagan an Assistant Commissioner of the Punjab cadre in 1892-93, whose services were borrowed from the Punjab Government for this purpose.[1] The first settlement came into force in 1894-95 for a period of ten years, which was gradually extended upto 1911.

Survey

The survey undertaken during this Settlement was the first regular one and was carried out with the plane-table in the *Khalsa* area, excluding Anupgarh and Tibi tahsils. The chain used was 127½ feet in length and a square of two chains was equal to one pucca bigha or five-eigth of an acre. Elsewhere, the chain was the local one, 63¾ feet in length and a square of two of them was equal to one Bikaneri bigha or 0.37 of an acre. After measuring the area of each village the boundaries were marked on a map. The *Khasra* or field register containing the name of the holder and the area of each field in serial order was prepared. In the *Khatauni* or register showing the groups of separate holdings the fields were arranged according to their location.

1. *Four Decades of Progress in Bikaner*, 1937, p. 34.

ASSESSMENT

The rates fixed varied from Rs. 0–3–9 to Rs. 0–5–3 per bigha for the cultivated land and from 2 pies to one anna per bigha for the occupied waste.

As a result of the Settlement, the land revenue demand for the *Khalsa* villages of the State was fixed at Rs. 3,99,054.

The term of Settlement was fixed at ten years, but in 1903 it was extended by six years[1].

In 1909, Settlement and Survey operations were again taken in hand, and as a result thereof, the demand increased to Rs. 7,93,656, of which a sum of Rs. 1,67,135 was on account of *Khalsa* villages and the rest due to large influx of settlers in the Suratgarh *Nizamat*.[2] The Settlement (1909–11) was completed within two years and resulted in a demand of Rs. 9,04,455, but it was not put into force.

In 1912, G. D. Rudkin was appointed as Revenue Commissioner and he served the State as the Revenue Minister later. Although he retained the fundamental principles initiated by Fagan in 1884, yet changes in the rates of assessment were made in 1928 according to the type of the soil. They were, however, tentantive and served as an experimental measure as regular settlement could not be made at that time. Even reassessment was held up for several years on account of the initial difficulties faced during the infancy of the Gang Canal. This system continued till 1944, when the Government considered that an assessment in the Gang Canal Colony should be made on scientific lines to conform to the modern principles of assessment adopted in the Punjab Colonies.

Improvements under Rudkin

Under Rudkin, the revenue administration improved considerably. Rates at certain places were revised. Remission of old and unrecoverable arrears, and reduction in assessed revenue were made in some villages. Permission was given to *Khatedars* to take unoccupied waste-land for cultivation on four years' lease. Improvement were also effected in the training arrangements of Patwaris.

1. *Four Decades of Progress in Bikaner*, 1937, p. 34.
2. *ibid.*, p. 34.

The greatest achievement of Rudkin was the colonisation of the Gang Canal and the development of the Canal area. Complex problems of revenue administration arose in this area but were successfully solved by him. Plans to settle people in the area were formulated long before the canal waters were to flow in the region. He devoted great deal of his time to the settlement of villages in the Canal area. Formerly, fields of tenants were mostly scattered all over the village area, he had them consolidated. They were surveyed and the area that was served by irrigation was kept separate from the area not so served. For the served area the tenants were given in exchange an equal but consolidated plot of land on one water course set apart for the village.[1] In order to meet the heavy expenditure of the Canal Project, the unoccupied land was sold with full proprietary rights.[2]

Settlement of 1946

The Assessment Report of the First Regular Settlement of the Gang Canal Colony was brought out in 1946 by Rai Sahib Bihari Lal, P.C.S., Revenue Commissioner, Ganganagar Division. Prior to the Settlement of 1946, land was assessed irrespective of the fact whether it was cultivated or not. For wet areas fluctuating rates were applied which varied with crops. Both in theory and practice, the system of assessment was fluctuating. In the Colony area both flat rates (dry assessment) and cropwise rates (wet assessment) were prevailing. At that time two systems of assessment were in vogue in the neighbouring State (Punjab); fixed and fluctuating. In the fixed system the demand was fixed for a specified number of years. In the fluctuating system, the Settlement Officer fixed rates to be levied on different classes of crops or soils. The cultivable area only was assessed and all the fallow area was left out.

Assessment Proposals

Various factors were considered before fixing the revenue rates. The area and resources of people had considerably improved during the period of twenty years which preceeded the present settlement. Marketing facilities were ample for the disposal of the marketable surplus of colony area, the soil had benefited a good deal by canal irrigation, and there were no signs of exhaustion of the soil. The size of holdings, however, was small. It was, therefore, inferred that the Gang Canal Colony was in a

1. *Report on the Administration of the Bikaner State*, 1924–25, p. 29.
2. *ibid.*, p. 30.

reasonably good economic condition and had ample scope for improvement. The assessment was, therefore, to be moderate, fair and equitable. The State took its share without coercing the cultivators or seriously hampering furthur development of the colony.

The following table gives a comparative idea of the proposed rates[1]:

Tahsil	Assessment Circle	Rate per matured bigha								
		on the average of selected years			Permissible under the law			Proposed		
		Rs.	A.	P.	Rs.	A.	P.	Rs.	A.	P.
Ganganagar	Ganganagar	1	9	6	1	15	11	1	13	6
Karanpur	Karanpur									
	Kesrisinghpur	1	8	7	1	14	9	1	11	11
Padampur	Padampur									
	Nohar	1	7	8	1	13	7	1	11	1
Raisinghnagar	Panwarsar	1	7	7	1	13	6	1	8	9
Anupgarh	Bijaiynagar	1	13	3	2	4	7	1	13	10
Whole Colony		1	7	1	1	12	10	1	8	5

The term of settlement was recommended to be twenty years. Although land was fertile and yielded good crops, the above statement reveals that in all the circles the proposed rates were below the rates provided for under the law.

It was also recommended that horticulture should be encouraged. Gardens and orchards were to be assessed at the rate of Rs. 5 per bigha, exemption being made in the case of new gardens and orchards for the first 8 years.

Remissions were also allowed on the pattern prevailing in the Punjab colonies. The determination of *Kharaba* was made on request to the Collector and *Kharaba* was determined in *Gasht Girdawari* and on that basis remission in revenue was allowed by the then State Administration.

1. *Assessment Report of the First Regular Settlement of Gang Canal Colony*, p. 99.

In case of widespread calamities such as hail storm, locusts, frost and general failure of the crop, general remissions were ordered by the State Government. Considerable remissions and several other concessions were also allowed from time to time to the cultivators of those areas where rains had failed and alternate means of irrigation were not available.

Bikaner State Land Revenue Act, 1945

This Act passed in 1945 extended to the whole of the State. According to its provisions, land revenue was assessed in cash on prescribed rates per bigha matured or cultivated during any harvest or during any year, and was payable annually in a lump-sum or by instalments. The assessment was based on an estimate of the average money value of the gross assets or net assets of the land. If the land revenue was assessed as a fixed annual charge, and in the form of prescribed rates, the average amount of revenue was not to exceed one-half of the estimated value of net assets. Assessment of land revenue could be general or special.

The period of assessment was fixed as follows :

Khalsa villages
(a) *Barani* areas–30 years
(b) Canal irrigation area–maximum 20 years
minimum 10 years

Jagir Areas
(i) for I settlement–12 years
(ii) for II settlement 20–years
(iii) for subsequent settlements–as for *Khalsa* land

Present Settlement

NOHAR

Settlement operations of Jagir areas in the district started in the year 1951, and Nohar tahsil of Ganganagar district was the first to be taken up. Settlement of 140 Jagir villages was completed on the basis of rent assessment book written by Inder Bhan, Settlement Commissioner, Bikaner. A total of 3,745 sq.km. (1,446 sq. miles) land was settled and land revenue amounting to Rs. 1,75,095 was assessed on the basis of State share in the produce per bigha. Soil of this tahsil was classified as *Pala*, non-*Pala* and *Banjar* and the survey was carried out with a chain of 165 feet length. Settlement operations continued up to 1956. The term of this settlement was five years. Rates of land revenue were fixed as follows :

Name of Soil	Rates per acre (Rs.)	
	Highest	Lowest
Pala	0.70	0.45
Non-*Pala*	0.70	0.50
Banjar	0.22	0.16

BHADRA

Settlement work in tahsil Bhadra started in the year 1951 and an area of 518 sq. km. or 200 sq. miles covering only 28 Jagir villages was settled for a period of five years. A chain of 165 feet in length was used in survey operations. Rates of land revenue were determined as follows :

Name of Soil	Rates per acre (Rs)	
	Highest	Lowest
Pala	0.75	0.45
Non-*Pala*	0.70	0.40
Cultivated	0.75	0.43
Banjar	0.25	0.14

The total land revenue fixed for 28 villages was Rs. 59,396.

ANUPGARH

Settlement of 26 Jagir villages commenced in the year 1951, by Inder Bhan, Settlement Commissioner, Bikaner Division and it remained in force for a period of 12 years. The total area under assessment was 2,152 sq. km. or 831 sq. miles for which land revenue amounting to Rs. 12,835 was fixed. The rates on the basis of soil and its classification were determined as follows :

Name of Soil	Rates per acre (Rs.)	
	Highest	Lowest
Nehari	3.39	2.69
Barani	1.20	0.19
Pala	0.30	—
Non-*Pala*	0.26	—
Banjar	0.13	—

HANUMANGARH

Settlement of only 3 Jagir villages for a period of 23 years was done in 1952 by Satya Pal, Assistant Settlement Officer. The total area of these villages was 18 sq. km. or 7 sq. miles and a sum of Rs. 1,223 was fixed as land revenue. The chain used for survey purposes was of 165 feet length. The proposed rates were as follows :

Name of Soil	Rates per acre (Rs.)	
	Highest	Lowest
Barani	0.70	0.59
Nali	0.59	—
Rohi	0.40	—

SURATGARH

56 Jagir villages covering an area of 1,110 sq. km. (690 sq. miles) were settled for revenue purposes by Shri Sadasukh, Settlement Officer, Bikaner in 1950 and it was to remain effective for a period of 12 years. A sum of Rs. 34,144 was proposed as land revenue for these villages. The area under settlement was measured with a chain of 165 feet length. The rates were worked out as follows :

Name of Soil	Rates per acre (Rs.)	
	Highest	Lowest
Nali	0.50	—
Rohi	0.50	0.35
Dhora	0.30	—
Cultivated	0.50	0.45
Banjar	0.50	0.45

Thus in all 255 Jagir villages of five tahsils, covering an area of 7,620 sq. km. or 3,174 sq. miles were settled for land revenue purposes after the formation of Rajasthan.

Revenue settlement of *Khalsa* villages of all the tahsils in the district had already been done by the Government of erstwhile Bikaner State. It covered an area of 11,649 sq. km. (4,499 sq. miles) containing 1,553 villages.

Administration of Jagir Areas

The entire territory of Bikaner was divided into two categories *Khalsa* and Jagir. The *Khalsa* area was held by the State Government, while the Jagir area comprised of land which the rulers had assigned either to their kinsmen from time to time for rendering military services, or to others for special services, or for charitable purposes, or as reward.

POWLETT'S SETTLEMENT OF 1870

Settlement of Jagir areas in the erstwhile Bikaner State was done for the first time by Powlett in 1870 for a period of ten years. The tenure of old grants was kept conditional, subject to continued loyalty to the ruler. No taxes were to be paid by Jaghirdars in respect of their villages except the fixed tribute and ordinary customs dues. Tribute was to be paid at the rate of Rs. 200 a horseman.[1]

This settlement expired in April, 1879. As there was some trouble between the Ruler and *Thakurs* or Jaghirdars, in 1883, Capt Talbot was sent as a sepcial officer to mediate, and he proposed that a sum of Rs. 2,75,000 be realised from the Jaghirdars. This was agreed to by all the Jaghirdars and consequently fresh *Sanads* or titles including the aforesaid clause were issued to each of them.

Thereafter no settlement took place in Jagir areas till the year 1941. The Jaghirdars had been fixing rent arbitrarily so much so that the rates in Jagir areas in 1940 were twice those prevalent in the *Khalsa* areas.

REVENUE COLLECTION BY JAGHIRDARS

The Jaghirdars employed their own revenue officers, who till the end of the 19th century, collected revenue in kind. When the crops were ripe, they used to go from field to field to make their appraisal in consulation with the leading peasants. This method of assessment was called *Latai* or *Batai*. The share of the Jaghirdar differed from place to place. It ranged from ¼th or 1/5th to as much as one-half of the gross produce.

Jaghirdars had no right to eject the cultivator from his land though they could increase the rent according to their sweet will, but it was not generally done. They did not maintain any regular land records for

1. *Report on the Political Administration of Rajpootana States*, 1870–71, p. 209.

areas under them till Maharaja Ganga Singh (1887–1943) forced them to do so. Besides keeping proper revenue records giving all necessary details the credit for introducing a system of cash payment in all Jagirs and fixing the rent rates for the first time also goes to the Maharaja. The rent rates varied from annas two to ten per bigha according to the quality of the soil. For grazing areas, it was one anna per bigha. Appeals against unlawful ejectment by the Jaghirdars could be filed with the State authorities. Suspensions and remissions were regulated by the State revenue authorities. The State Land Revenue and Tenancy Acts were made applicable to Jagirs also. Besides land revenue, the following important levies etc. were also payable by the cultivators:

(1) *Malba* or *Pichhotra*–Usually realised from the tenants to meet the actual miscellaneous expenses of the Jagir officials who visited the villages for collecting the Jaghirdar's share in the produce.

(2) *Karad*–The peasants had to give fodder for the maintenance of horses and other animals kept by the Jaghirdars. This was realised both in cash and in kind.

(3) *Bai-ji-ka-hatha-kharach*–To meet the expenditure on the marriage of the Jaghirdar's daughter.

(4) *Kansa Parosa*–The tenants were compelled to send at least 25 *Pattals* or Platefuls of sweets etc. to the Jaghirdars house on the occasion of any marriage or death in their family.

(5) *Begar* or forced labour–The Jaghirdars were entitled to take free services for household from *Chamars*, *Malis*, barbers, carpenters and others.

It may be mentioned that procedure for realising rents and cesses caused lot of harassment and suffering to the peasantry and force was often used.

The following statement would reveal the tribute collected from Jaghirdars of Ganganagar division during the years 1944–45, 1945–46 and 1946–47[1] :

1. *Report on the Administration of the Bikaner State*, 1944–45, 1945–46 and 1946–47.

(Rupees)

Year	Demand			Collections			Balance		
	Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
1944-45	1,100	5,875	6,975	945	5,814	6,759	155	39	294
1945-46	1,560	6,319	7,879	366	3,413	3,779	1,202	2,898	4,100
1946-47	4,100	6,345	10,445	1,610	4,250	5,860	2,498	2,086	4,584

The following is the statement of land revenue from Tibi *Pargana* for the years 1944-45, 1945-46 and 1946-47[1]:

(Rupees)

Year	Items	Demand			Collection			Balance		
		Arrears	Current	Total	Arrears	Current	Total	Arrears	Current	Total
1944-45	Land Revenue	8,704	27,203	35,907	925	21,072	21,997	7,779	6,131	13,910
	Water Rent	2,271	4,562	6,833	365	3,359	3,724	1,906	1,203	3,109
	Total	10,975	31,765	42,740	1,290	24,431	25,721	9,685	7,334	17,019
1945-46	Land Revenue	13,910	34,545	48,455	763	5,926	6,689	13,147	28,619	41,766
	Water Rent	3,109	4,500	7,609	305	1,004	1,309	2,803	3,497	6,300
	Total	17,019	39,045	56,064	1,068	6,930	7,998	15,950	32,116	48,066
1946-47	Land Revenue	41,766	55,159	96,925	25,989	18,855	44,844	15,777	36,304	52,081
	Water Rent	6,300	15,631	21,931	3,806	14,032	17,838	2,495	1,598	4,093
	Total	48,066	70,790	1,18,856	29,795	32,887	62,682	18,272	37,902	56,174

1. *Report on the Administration of the Bikaner State*, 1944-45, 1945-46 and 1946-47.

The following statement shows the total land revenue of *Khalsa* villages of Ganganagar Division during the years 1944-45, 1945-46 and 1946-47:[1]

(Rupees)

Year	Revenue	Arrears	Current	Total
1944-45	Demand	2,00,342	20,96,374	22,96,716
	Collections	86,999	20,44,040	21,31,039
	Balance	1,13,342	52,333	1,65,675
1945-46	Demand	1,81,205	21,62,463	23,43,668
	Collections	21,037	14,09,594	14,30,631
	Balance	1,60,168	7,52,869	9,13,037
1946-47	Demand	8.20,083	22,56,488	30,76,571
	Collections	6,74,307	12,15,472	18,89,779
	Balance	1,45,775	10,41,015	11,86,790

LAND REFORMS

The district had 937 Jagir villages and 44 villages of the *Biswedari* system. Besides, there was the *Zamindari* system in all the villages of the Gang Canal area. All these have now been abolished as a result of the Rajasthan Land Reforms and Resumption of Jagirs Act, 1952 and the Rajasthan *Zamindari Biswedari* Abolition Act, 1959.

Abolition of Jagirs

Jaghirdari was abolished as a result of the implementation of the Rajasthan Land Reforms and Resumption of Jagirs Act, 1952. At the time of the passing of the Act there were 248 Jagir villages and 145 *Khalsa* villages out of a total of 393 in the district, as indicated below[2]:

(Number)

Name of tahsil	Jagir villages	*Mushtarks* villages	*Khalsa* villages
Nohar	140	—	6
Bhadra	26	—	51
Suratgarh	56	—	23
Anupgarh	25	—	—
Hanumangarh	1	—	62
Ganganagar	—	—	3
Total	248	—	145

1. *Report on the Administration of the Bikaner State*, 1944-45, 1945-46 and 1946-47.
2. Source : Collectorate, Ganganagar.

The following statement indicates the details of compensation paid to Jaghirdars in various forms[1]:

Year	Total No. of Jagirs resumed	Compensation paid (Rupees)			
		Interim compensation	In bonds	In cash	Total
1954–55	202	—	—	—	—
1955–56	—	1,51,143	—	—	1,51,143
1956–57	—	2,04,164	8,500	116	2,12,780
1957–58	45	1,11,574	7,68,750	9,585	8,89,909
1958–59	388	7,165	13,57,550	47,413	14,12,128
1959–60	—	—	1,77,300	829	1,78,129
1960–61	—	—	5,350	32	5,382
1961–62	—	—	—	—	—
1962–63	—	—	6,800	37	6,837
1963–64	—	—	39,800	287	40,087
1964–65	—	—	—	—	—
1965–66	—	—	1,38,000	—	1,38,000
Total	635	4,74,046	25,02,050	58,299	30,34,395

Biswedari

The system of *Biswedari* was prevalent in 44 villages of tahsil Hanumangarh which had 1,994 *Biswedars*. *Biswedari* rights were abolished in 1959, as a result of which a total of 354.31 sq. km. or 87,553 acres of land has been vested in the State. 415.19 sq. km. (1,02,575 acres) of land was held in *Khudkasht* by the *Biswedars*.

Zamindari

This system, prevailing in 5 tahsils of the Gang Canal Colony in 1,142 villages, with a total area of 2878.57 sq. km. or 7,11,310 acres was abolished with effect from 15.1.1960. The number of this kind of estate holders was 36,609 and they held 2,486.87 sq. km. or 6,14,520 acres of land under their *Khudkasht*. 391.70 sq. km. or 96,790 acres of land vested in the State.

Consolidation of Land Holdings

Consolidation of land holdings was started in tahsil Bhadra during the year 1957–58. A total of 717.08 sq. km. or 1,77,195 acres of

1. Source : Collectorate, Ganganagar.

land covering 49 villages was consolidated. There were 5,898 holders of land and 2,68,094 individual *Chaks* in the area prior to their consolidation. After consolidation 44 individual *Chaks* were formed and an average area of 0.8 acre of land was allotted to each individual holder. When consolidation was completed in 1960-61, a notification was issued by the State Government[1].

Consolidation of land holdings has proved beneficial to the cultivators in a number of ways. It has provided them with better facilities for agriculture and has resulted in standard size of farms, better provision for collection of manure and undisputed boundaries. The cost of consolidation work was shared between the State Government, the Central Government, and the individual land holder in the ratio of, ¼, ¼ and ½ of the total cost respectively. Consolidation work in the remaining parts of district has not been undertaken yet.

Rajasthan Bhoodan Yagna Act, 1954

The Rajasthan *Bhoodan Yagna* Act, 1954 was brought into force from the 7th of August, 1954, with a view to encouraging the *Bhoodan* Movement initiated by Acharya Vinoba Bhave. It provided for the constitution of a *Bdoodan Yagna* Board, donation of land to such board, distribution of land received in donation to landless persons or for community purposes and for matters ancillary thereto.

In Ganganagar District, till June 1966, land measuring 23,324 acres was received by the Board in donation which was distributed among landless peasants. Out of 94.38 sq. km, or 9,438 hectares (23,324 acres), about 88.24 sq. km. or 8,824 hectares (21,805 acres) of land remained to be allotted to such peasants. Promises of donation of 6.14 sq. km. or 614 hectares (1,519 acres) of land did not come off as the donors seem to have changed their mind on second thought.

Revenue Collection Agency

The actual collection of land revenue is made through the village Patwari whose work is supervised by a land revenue inspector, the Tahsildar and the Sub-Divisional Officer. The District Collector has an over-all supervision over the revenue collection work in the district. Till 1963, the *Patwaris* were assisted in the collection work by *Lambardars*. The Govern-

1. *Rajasthan Government Gazettee No. 27, dated the 6th September*, 1960, part 2 (A) p. 220.

ment of Rajasthan has since abolished the system of *Lambardari* and therefore, the collection of land revenue is now the direct responsibility of the *Patwari* and others in revenue hierarchy.

Revenue Units

The following statement shows the number of Inspection Circles or *Girdawar* and *Patwar Halkas* in the district[1] :

Tahsil	Inspection Circles (*Girdawar*)	*Patwar Halkas*
Ganganagar	4	53
Karanpur	4	46
Padampur	3	40
Raisinghnagar	4	49
Anupgarh	4	42
Hanumangarh	3	36
Suratgarh	4	56
Sadulshahr	3	27
Sangaria	3	23
Tibi	3	27
Nohar	5	65
Bhadra	3	41
Total	43	505

The actual locations of revenue units are given at Appendix I.

The following is the statement of institution and disposal of revenue cases in the district for the last eight years[2] :

(Number)

Year	Previous Balance	Instituted during the year	Total	Disposed off during the year	Balance
1958-59	2,541	7,994	10,535	4,420	6,115
1959-60	2,343	4,741	7,084	4,838	2,246
1960-61	1,338	3,688	5,026	3,712	1,314
1961-62	498	20,445	20,943	20,193	750
1962-63[3]	750	4,281	5,031	3,738	1,293
1963-64	1,952	3,339	5,291	3,436	1,855
1964-65	1,818	10,148	11,966	8,867	3,099
1065-66	3,099	19,597	22,696	8,426	14,270

1. Source : Collectorate, Ganganagar.
2. *Statistical Abstract, Rajasthan*, 1960 onwards.
3. Data relate to the calender year 1962.

Income from Land Revenue

The following statement shows the demand and collection of land revenue in the district from 1954-55 to 1964-65[1] :

(Rs. in lakhs)

Year	Demand (Arrear & current)	Collection during the year.	Remission/ Suspension during the year.	Balance at the end of the year.
1	2	3	4	5
1957-58	78.12	54.46	—	23.66
1958-59	91.90	71.60	—	20.30
1959-60	78.82	54.81	—	24.01
1960-61	74.07	48.39	7.26	18.42
1961-62	77.52	51.36	6.97	19.19
1962-63	53.55	57.18	9.50	6.87
1963-64	N.A.	N.A.	N.A.	N.A.
1964-65	140.97	93.13	22.89	24.95

Agricultural Wages

In former times, landlords and Jaghirdars made considerable use of casual labour for agricultural purposes without paying them regular wages. Labourers were provided either with insufficient ration or meagre wage.

The Gang and Bhakra Canal systems in district Ganganagar have almost assured better crops. Extensive and intensive cultivation in the area has improved the economic conditions of the landholders who employ agricultural labour in large numbers sometimes hailing from the neighbouring States of the Punjab and Haryana. Labourers are now paid in cash which is usually supplemented by small quantity of grain at the time of harvest. The rates of agricultural wages fluctuate from place to place and from month to month according to the nature of husbandry operations and fertility of the area. In irrigated areas lying in tahsils Ganganagar, Anupgarh, Karanpur, Raisinghnagar, Padampur and Suratgarh, where farmers are better off than in the sandy and non-irrigated tracts, a male labourer may earn as much as Rs. 4.00 a day, while women labourers earn from Rs. 3.00 to Rs. 3.50 a day in the peak season.

1. *Statistical Abstract, Rajasthan*, 1960 onwards (Year from October to September).
N.A.=Not available.

Wages are comparatively lower in the rest of the area varying from Rs. 2.50 to Rs. 4.00 per day. The rate of wages is the highest in tahsil Ganganagar where it ranges from Rs. 5.00 to Rs. 5.50 while in tahsils of Tibi and Sadulshahr, the maximum does not exceed Rs. 2.50 per day. The total number of casual landless labourers in the 1961 census, totalled 46,476 (40,653 males and 5,823 females) including dependants. The Government of Rajasthan has adopted a positive policy of settling them on their own land.

OTHER SOURCES OF REVENUE

Besides the land revenue, a number of other taxes were levied in the past by the former State of Bikaner. During the regime of Surat Singh (1787-1828 A.D.) the taxes included *Anga* or poll tax on men and animals, customs, *Dhuan* or hearth tax, *Paseti* or plough tax, *Malba* or land tax and a few other non-descript cesses. Over and above these items a triennial tax *Dhatoie* or Rs. 5 per plough and the very frequent compulsory contributions *Dand* and *Khoosali* were also levied. In the latter part of 19th century some of the important taxes were, tax levied on the sale of camels and certain goods in the city; license tax on speculations about the prices of opium and probability of rainfall; adoption fee; tax to meet the expenses of marriages of princes and princesses; taxes on *Ghee* and tobacco; tax on brokers of cloth; tax on sale of gold and silver and tax from each village *Choudhari*. Licence fee on running certain crafts was also realised. This long list of taxes and cesses indicates how wide and all embracing was the range of taxation structure prevalent at that time.

Maharaja Ganga Singh, (1887-1943) was the first ruler to completely reform the taxation system in the former Bikaner State. A number of harassing and non-descript cesses were abolished. The services which a Jaghirdar was obliged to render in lieu of his Jagir were commuted into cash tribute called *Rekh*. New sources of revenue such as Tax on Salt, Excise, Court fee and Registration were tapped and Customs duties were regulated. Introduction of Railways in the realm also provided substantial revenue to the State exchequer.

At present the main sources of revenue, besides the land revenue in the district, are Excise and Taxation including Sales Tax, Entertainment Tax, Registration, Stamps, Transport etc. The Central Government's revenue sources include Income Tax, Customs and Central Excise. Details of State offices which are responsible for collecting revenue in the district are given as follows :

DISTRICT EXCISE OFFICE—This office deals with State Excise Duties which bring in considerable revenue in Ganganagar district. A number of Excise Inspectors under a District Excise Officer are stationed in the district and are entrusted with checking of the sale of country liquor, drugs and other excisable articles. A fuller description of the actual consumption of various intoxicants is given in the chapter Other Social Services. The following statement showing the yearwise revenue of the department from 1960-61 to 1964-65 reveals that income from this source has more than doubled in the last 5 years[1].

(Rs. in thousand)

Year	Excise revenue
1960-61	5242
1961-62	5733
1962-63	6843
1963-64	8157
1964-65	9804

COMMERCIAL TAXES OFFICE—This office deals with Sales Tax, Rajasthan Passenger and Goods Tax, Entertainment Tax and all other taxes imposed by the State Government from time to time. Sales Tax yields considerable revenue to the State exchequer. For administrative purposes the district is divided into five wards each of which for purposes of assessment of the tax and enforcement of the Act is under the charge of an Assistant Commercial Taxes Officer. There are three Commercial Taxes Inspectors for Sales Tax, two Commercial Taxes Inspectors for Rajasthan Passenger & Goods Tax, one inspector for Entertainment Tax and one Prosecution Inspector for prosecuting the offenders under the various Commercial Taxes in the district. The controlling authority over them in the district is the Commercial Taxes Officer. The ministerial staff consists of one head clerk, one accounts clerk and other usual class III and class IV employees.

The following statement reveals the revenue obtained through the Department of Commercial Taxes from 1960-61 to 1965-66[2] :

1. *Statistical Abstract, Rajasthan,* 1960 onwards.
2. *ibid.*

(Rs. in thousand)

Year	Sales Tax	Rajasthan Passenger & Goods Tax.	Entertainment tax
1960-61	2765	—	—
1961-62	3589	—	—
1962-63	4975	—	—
1963-64	8118	1547	332
1964-65	8527	1236	430
1965-66	10395	1497	531

Ganganagar is a border district adjoining Punjab and Haryana States in Indian Union. With a view to collecting and preventing evasion of Sales Tax, Rajasthan Passenger and Goods Tax, and Permit Fee, 6 Check Post barriers have been provided on important interstate routes. Tax is levied and collected at these places on goods imported into Rajasthan from outside. From the revenue point of view Sadhuwali, Sangaria, Karadwala and Jhansal are important check posts.

The following table gives the amount of Revenue collected in 1965-66 at all these places[1] :

(Rs.)

Name of the Check Post	Rajasthan Passenger& Good Tax	Rajasthan Sales Tax	Transport Tax
Karadwala	11,902	2,930	22,726
Sangaria	19,625	7,623	29,584
Sadhuwali	27,868	6,932	54,223
Jhansal	706	370	1,172
Dabri	—	371	—
Phephana	—	151	70

1. Source : Commercial Taxes Office, Ganganagar.

REGISTRATION DEPARTMENT–Under the Indian Registration Act of 1908, registration of certain documents is compulsory and optional in the case of others. Fees are levied for such registrations, except documents executed by or in favour of Co-operative Credit Societies, Land Mortgage Banks, Urban Banks and Housing Societies. The Sub-Divisional Officer stationed at District Headquarters has been delegated the powers of the District Registrar, but the actual work of registration at Ganganagar town is done by the Sub-Registrar appointed by the Registration Department and elsewhere by the Tahsildars who have been delegated the powers of Sub-Registrars in their respective tahsils. The Collector is empowered to hear appeals against the orders of Sub-Registrars within his jurisdiction and he exercises over all control and supervision over registration work in the district. Sub-Registrars submit periodical returns to him. A record of all the registered documents is kept in the district and on application and deposit of proper fees, their certified copies can be obtained.

The following statement indicates the number of documents registered and the total registration fees collected in the district during the period 1960 to 1966[1]:

Year	No. of documents registered	Total registration fees (Rs.)
1960–61	5,812	1,75,619
1961–62	6,192	1,66,025
1962–63	5,257	1,74,832
1963–64	8,165	2,51,682
1964–65	8,265	1,97,780
1965–66	6,430	2,25,432

DISTRICT TREASURY OFFICE–Under the Stamps Act, the District Treasury Officer has been empowered to function as the custodian of stamps. He is responsible both for storage as well as distribution and sale of stamps to the sub-treasuries and stamp vendors, who work under him. Stamps, both judicial, and non judicial, are supplied to the Treasury Officer by the Superintendent of stamps in the State. There are 24 stamp vendors appointed by the Collector at the various tahsil headquarters.

1. Source : Collectorate, Ganganagar.

Commission permissible to a stamp vendor on the sale of judicial and non-judicial stamps is given below :

(a) District Headquarters	3.10 per cent
(b) Sub-Divisional Headquarters	4.60 ,,
(c) Tahsil Headquarters	6.25 ,,
(d) All Headquarters, court fee	1.55 ,,

The yearwise figures of the sale of Non-judicial and Revenue Stamps and Court and Copying fees for the years 1960–61 to 1965–66 are given below[1] :

(Rupees)

Year	Non-judicial and Revenue stamps	Court fees and Copying fees etc.
1960–61	8,92,516	2,01,812
1961–62	9,02,009	2,30,956
1962–63	11,89,241	2,66,062
1963–64	20,08,205	3,12,609
1964–65	16,39,465	2,84,867
1965–66	19,16,850	3,02,877

TRANSPORT DEPARTMENT–A motor vehicle transport Sub-Inspector assisted by a transport clerk functions at the district level. The main duty of the Sub-Inspector is to secure registration of motor vehicles and timely realisation of taxes. He also tours frequently to check whether the transport rules and regulations are being observed by motor operators. The Collector is the Registration Authority for the district. From 1955–56 to 1965–66 the number of vehicles registered was 5,038 and the income accruing therefrom amounted to Rs. 71,891.

CENTRAL SOURCES

The following Central Offices are engaged in revenue collection in the district :

Superintendent Central Excise

Ganganagar district has been placed under the jurisdiction of an Assistant Collector, Central Excise, stationed at Jodhpur. He is assisted

1. Source : District Treasury Office, Ganganagar.

by a Superintendent, Central Excise, Ganganagar, The field staff of Ganganagar unit comprises two inspectors, one sub-inspector and two orderlies for Central Excise and two inspectors, one sub-inspector, three orderlies and one driver for Central Customs wing.

The statement showing revenue accruing from the Ganganagar district during the last five years is given below[1] :

(Rupees)

Source of Revenue	1961-62	1962-63	1963-64	1964-65	1965-66
Tobacco (un-manufactured)	2,66,694	2,72,341	3,14,798	2,81,037	2,41,434
Vegetable non-essential oils	33,197	1,714	—	—	—
Sugar (other than *Khandsari*)	18,84,773	21,44,682	17,67,179	8,97,622	10,13,645
Khandsari sugar	—	—	—	24,306	12,262
Sodium Silicate	—	—	1,454	12,013	16,000
Motor vehicles	3,903	2,377	1,690	2,170	4,534
Wireless Receiving Sets	18	30	—	—	—
Internal Combustion Engines	240	140	309	436	197
Cotton Fabrics	18,32,676	15,51,970	17,53,892	21,67,798	11,16,543
Cotton yarn	8,240	24,584	28,318	41,878	4,07,158
Total	40,29,741	39,97,838	38,67,640	34,27,260	28,11,773

Income Tax office

The district is divided into five wards including a General Ward, each headed by an Income Tax Officer for levying Income Tax. There are three Income Tax Inspectors and other subordinate staff for its enforcement and collection. One head clerk, other ministerial and class IV staff have also been provided in the office.

1. Source : Office of the Assistant Collector, Central Excise, Jodhpur.

The revenue receipts for the past five years are given below[1]:

(Rupees)

Year	Revenue receipts (Income Tax)
1961–62	12,22,000
1962–63	13,69,000
1963–64	21,54,000
1964–65	25,80,000
1965–66	32,45,000

1. Source : Income Tax Office, Ganganagar.

APPENDIX I

List of Inspection Circles and *Patwar Halkas*, Ganganagar[1].

S.No.	Name of Tahsil	Inspection Circles (*Girdawar*)	*Patwar Halkas*
1	2	3	4
1.	Ganganagar	1. Shivpur (1F)	1. Kotha
			2. Paki
			3. Sujawalpur
			4. Oraki (4 C)
			5. Dulapur Keria (5 D)
			6. Shivpur (1 F)
			7. Maderan
			8. Khatlawana (2 F)
			9. Kaliyan (3 G)
			10. 3 Y
			11. Sadhuwali (1 d)
			12. 3 Z
			13. Chak Bhagsar
		2. Mirzewala (12F)	1. Mohanpura (8 Y)
			2. Rohiranwali
			3. Koni
			4. Daulatpura (3 g)
			5. Sangatpura (8 H)
			6. Bakhtana
			7. Mirzewala (12 F)
			8. 4 K
			9. Matilirathan A (15 F.1)
			10. Matilirathan B (15 F.1)
			11. Sahib Singhwala (3 N)
			12. 9 Z
			13. 3 c

1, Source : Collectorate, Ganganagar.

APPENDIX I—(contd.)

1	2	3	4
		3. Chunawadh	1. 27 GG
			2. Jodhewala
			3. Chunawadh
			4. Tatarsar Rathan (11 LL)
			5. 5 LL
			6. Burzwali
			7. 2 LL
			8. 8 HH
			9. Lathanwali
			10. Mahianwali
			11. Ladhuwala
			12. 17 LNP
			13. Ganeshgarh
		4. Ganganagar	1. 18 Z
			2. 15 Z
			3. 10 Z
			4. 4 ML
			5. 2 ML
			6. 6 LNP
			7. 11 LNP
			8. 3 h
			9. 3 f Sahuwali
			10. 4 g
			11. Govindpura (18 GG 1)
			12. Netewala
			13. Hiranwali (18 ML)
			14. 13 g
	2. Karanpur	1. Jorawarpur	1. 2 FCA
			2. FCB
			3. 9 FA
			4. 3 FB
			5. 1 FFA
			6. 61 FA

APPENDIX I—(contd.)

1	2	3	4
			7. 58 FA
			8. 56 F
			9. 50 F
			10. Lalbai
			11. 18 FF
			12. 9 FF
		2. Karanpur	1. 6 FA
			2. 20 OA
			3. 20 OB
			4. Naggi
			5. Burjwala
			6. 33 H
			7. 16 S
			8. Karanpur
			9. Buding
			10. Tajewala
			11. 3 O
			12. 15 O
		3. Dharangowali	1. 13 FF
			2. 43 GG
			3. 2 MM
			4. 52 GG
			5. 48 GG
			6. 27 F
			7. 32 F
			8. 25 F
			9. 2 W
			10. 25 H
			11. Ramgarh Sangar

APPENDIX I—(contd.)

1	2	3	4
		4. Keshrisinghpur	1. 6 V
			2. 7 S
			3. 4 S
			4. 13 H
			5. 2 T
			6. 2 H
			7. 26 H
			8. Keshrisinghpur
			9. 8 V
			10. 2 M
			11. 12 H
3. Padampur	1. Padampur		1. Makkasar (27 BB)
			2. Kashamka (26 BB)
			3. Delwa
			4. Butersar
			5. Rajpura A
			6. Rajpura B
			7. Dudamod
			8. 20 BB II
			9. Beran
			10. Jaluki (6 RB)
			11. 39 RB
			12. Tamkot (51 RB)
			13. 3 RBA
			14. 36 RBA
		2. Ratewala (9BB)	1. 9 BB (Ratewala)
			2. Punawali
			3. 8 NNA
			4. 4 NN
			5. 7 CC
			6. 37 GG
			7. 5 KK

APPENDIX I—(contd.)

1	2	3	4
			8. 2 PP
			9. Sanwatsar
			10. Manjuwas (52 LNP)
			11. Bakhtawarpura
			12. Narsinghpura
			13. 5 EEA
		3. Binjh Baila	1. Pharsewala Barani
			2. 11 EEA
			3. 1 PS
			4. Fakeerwali
			5. Jeewandesar
			6. 58 LNP
			7. Binjh Baila
			8. Jorkia (83 LNP)
			9. 54 LNP
			10. Ridmalsar Barani
			11. Ratanpura Barani
			12. 78 LNP
			13. 70 LNP
	4. Raisinghnagar	1. Thandi	1. 10. PS
			2. 22 PS
			3. 10 TK
			4. Thandi
			5. Nanwuwala
			6. 55 NP
			7. Satjanda A
			8. Satjanda B
			9. 19 NP
			10. Likhmewal
			11. 59 NP
			12. Shyamgarh

APPENDIX I—(contd.)

1	2	3	4
		2. Sangrana	1. Khialiwala
			2. Lalgarh Bishnoiyan
			3. Thandeywala
			4. Harnoli
			5. 77 RB
			6. Sangrana
			7. Bhadwanwala A
			8. Bhadwanwala B
			9. Khatan
			10. 71 RB
			11. Lakha Hakam
		3. Muklava	1. Udsar
			2. 14 PSB
			3. Ganguwala
			4. Kikarwali
			5. 16 PS
			6. 3 MK
			7. Muklawa
			8. Jagatsinghwala (13 TK)
			9. Dabla A
			10. Dabla B
			11. Karadwali A
			12. Karadwali B
			13. 5 TK
		4. Bhompura	1. 40 PS
			2. 43 PS
			3. Sanwatsar
			4. 71 NP
			5. 68 NP
			6. Bhompura
			7. Bagicha
			8. 30 PSA
			9. Thakri
			10. 62 NP

APPENDIX I—(contd.)

1	2	3	4
			11. Sameja
			12. Baruwali
			13. Faridsar
	5. Anupgarh	1. Jetsar	1. Boogiya A
			2. Boogiya B
			3. Jetsar
			4. 7 GB
			5. 12 GB
			6. 17 GB
			7. 23 GB
			8. 30 GB
			9. 32 GB
			10. 36 GB
		2. Ramsinghpur	1. Udasar A
			2. Udasar B
			3. 42 GB
			4. Bilochia A
			5. Bilochia B
			6. 40 GB
			7. 46 GB
			8. Kishansar
			9. 50 GB
			10. Gomawali
			11. 58 GB
			12. 62 GB
		3. Anupgarh	1. 90 GB
			2. 92 GB
			3. Sirajsar
			4. 86 GB
			5. 78 GB
			6. Anupgarh Dhora
			7. 72 GB
			8. 61 GB
			9. 74 GB
			10. Nahrawali
			11. Karanpura

APPENDIX I—(contd.)

1	2	3	4
		4. Gharsana	1. Gharsana
			2. Rojhari
			3. Seewani
			4. Anand-ka-Bara
			5. Sakhi
			6. Raola
			7. Anandgarh
			8. Khanuwali
			9. Jorawarpura
	6. Hanumangarh	1. Pakka Sarnan	1. Pakka Bhadwan
			2. Pakka Sarnan A
			3. Pakka Sarnan B
			4. Uttamsinghwala
			5. Jandawali A
			6. Jandawali B
			7. Hiranwali A
			8. Hiranwali B
			9. Dablibas Pemarohi
			10. Rodanwali
			11. Jorkiyan
			12. Nawan
		2. Hanumangarh	1. Dablibas Molviwala
			2. Dablibas Kutab
			3. Dablibas Chugta
			4. Bahlolnagar
			5. Sahjipura
			6. Fatehgarh A
			7. Fatehgarh B
			8. Makkasar
			9. Satipura A
			10. Satipura B
			11. Hanumangarh A
			12. Hanumangarh B

APPENDIX I—(contd.)

1	2	3	4
		3. Norangdesar	1. Kohla A
			2. Kohla B
			3. Kishanpura Dakhnada
			4. Ramsara Narain
			5. Jhamber Barani
			6. Norangdesar
			7. Ranjitpura A
			8. Ranjitpura B
			9. Lakhuwali A
			10. Lakhuwali B
			11. Chohlawali
			12. Arainwali
	7. Suratgarh	1. Suratgarh	1. Suratgarh
			2. Padmapur
			3. Amarpura Jatan
			4. Bhainroopura
			5. Veermana
			6 Lalgarh
			7. Maler
			8. Udpur Godaran
			9. Deidaspur
			10. Konpalsar
			11. Mokalsar
		2. Peeli Banga	1. Goloowala Bas Nawada A
			2. Goloowala Bas Nawada B
			3. Goloowala Bas Siyag
			4. Avalki A
			5. Avalki B
			6. Lakhasar A
			7. Lakhasar B
			8. Soorawali A
			9. Soorawali B
			10. Soorawali C

APPENDIX I—(contd.)

1	2	3	4
			11. Dhaba A
			12. Dhaba B
			13. Dhaba C
			14. Likhmisar
			15. Dhirdesar A
			16. Dhirdesar B
			17. Kharliya
		3. Sardargarh	1. Rampura
			2. Rang Mahal
			3. Karnisar
			4. Bhagwansar
			5. Ghamandiya
			6. Sardargarh A
			7. Sardargarh B
			8. Sardargarh C
			9. Sardarpura Beeka A
			10. Sardarpura Beeka B
			11. Rughnathpura
			12. Bhopalpura
			13. Govindsar
		4. Baropal	1. Amarpura Rathan
			2. Ludhana
			3. Peeli Banga A
			4. Peeli Banga B
			5. Kishanpura
			6. Rajpura Peepran
			7. Paditawali A
			8. Paditawali B
			9. Baropal A
			10. Baropal B
			11. Baropal C
			12. Thethar
			13. Somasar
			14. Thukrana A
			15. Thukrana B

APPENDIX I—(contd.)

1	2	3	4
	8. Sadulshahr	1. Sadulshahr	1. Aleepura
			2. Gadar Khera
			3. Karadwala
			4. Sadulshahr
			5. Kheduwala
			6. Naraingarh
			7. Maniwali B
			8. Bahrampura Bodhla A
			9. Bahrampura Bodhla B
		2. Khat Sajwar	1. Khat Sajwar
			2. Manniwali A
			3. Banwala
			4. Hakmabad
			5. Duda Kheechar
			6. Morjand Khari
			7. Mamar B
			8. Mamar A
			9. Bhagsar
		3. Lalgarh	1. Lalgarh A
			2. Dulrasar
			3. Lalgarh B
			4. Lalgarh C
			5. Ganeshgarh B
			6. Ganeshgarh C
			7. Panniwali
			8. Rotanwali
			9. Dungar Singhpura
	9. Sangaria	1. Sangaria	1. Sangaria
			2. Deengarh
			3. Dhaban A
			4. Dhaban B
			5. Haripura
			6. Bhakhranwali
			7. Santpura
			8. Bolanwali

APPENDIX I—(contd.)

1	2	3	4
		2. Ratanpura	1. Ratanpura
			2. Nagrana
			3. Manaksar A
			4. Manaksar B
			5. Leelanwali A
			6. Leelanwali B
			7. Nathwana
		3. Jandewala Sikhan	1. Indrapura
			2. Singhpura
			3. Shahapini
			4. Kishanpura Utrada
			5. Dholipal
			6. Rasuwala
			7. Nukera
			8. Jandewala Sikhan
	10. Tibi	1. Tibi	1. Tibi
			2. Talwara
			3. Silwala A
			4. Silwala B
			5. Khinaniya
			6. Chaoowali A
			7. Chaoowali B
			8. Dabli Khurd A
			9. Dabli Khurd B
		2. Sherekan	1. Sherekan
			2. Salemgarh
			3. Peer Kamriya
			4. Meharwala A
			5. Meharwala B
			6. Dabli Kalan A
			7. Dabli Kalan B
			8. Munda A
			9. Munda B

APPENDIX—I (contd.)

1	2	3	4
		3. Basheer	1. Tibi B
			2. Gudiya A
			3. Gudiya B
			4. Salewali
			5. Khara Khera
			6. Basheer A
			7. Basheer B
			8. Gilwala
			9. Surewala
	11. Nohar	1. Nohar	1. Nohar
			2. Sardarpura B
			3. Sardarpura A
			4. Bhookarka A
			5. Bhookarka B
			6. Aradki
			7. Sondi
			8. Jasana A
			9. Jasana B
			10. Ratanpura A
			11. Ratanpura B
			12. Gorkhana
			13. Birkali
		2. Ramgarh	1. Ramgarh
			2. Phefana A
			3. Phefana B
			4. Gudiya A
			5. Gudiya B
			6. Barwali
			7. Parlika
			8. Dhilki A
			9. Dhilki B
			10. Dhilki C
			11. Bad Virana A
			12. Bad Virana B
			13. Lalanawas Dikhnada
			14. Lalanawas Utrada

APPENDIX I—(contd.)

1	2	3	4
		3. Jabrasar	1. Jabrasar A
			2. Jabrasar B
			3. Dalpatpura
			4. Meghana
			5. Lalaniya A
			6. Lalaniya B
			7. Tidiyasar
			8. Pandusar A
			9. Pandusar B
			10. Mandarpura
			11. Dhansiya
			12. Neemla A
			13. Neemla B
		4. Rawatsar	1. Rawatsar A
			2. Rawatsar B
			3. Rawatsar C
			4. Khora
			5. Hardaswali
			6. Chaiya A
			7. Chaiya B
			8. Dhadhela
			9. Gandheli A
			10. Gandheli B
			11. Nolkhi
			12. Daidas
		5. Palloo	1. Palloo A
			2. Palloo B
			3. Visrasar A
			4. Visrasar B
			5. Naiyasar
			6. Baramsar A
			7. Baramsar B
			8. Moter A
			9. Moter B

APPENDIX I—(contd.)

1	2	3	4
			10. Jhedasar A
			11. Jhedasar B
			12. Seerangsar A
			13. Seerangsar B
	12. Bhadra	1. Kalana	1. Kalana
			2. Doongrana
			3. Kirada Bara
			4. Mundriya Bara
			5. Raslana
			6. Gheoo
			7. Malsisar
			8. Kuji
			9. Neethrana A
			10. Neethrana B
			11. Bharwana
			12. Munsari
			13. Karanpura
		2. Ajeetpura	1. Ajeetpura
			2. Gadhra
			3. Sherda
			4. Bhangarh
			5. Dabri
			6. Bhirani
			7. Garhichhani
			8. Sagra
			9. Jogiwala
			10. Utradabas
			11. Bhangwa
			12. Anoopshahr
			13. Bhadi
			14. Suratpura
			15. Dobhi

APPENDIX I—(concld.)

1	2	3	4
		3. Bhadra	1. Biharipura
			2. Bhadra A
			3. Bhadra B
			4. Bhojasar
			5. Chiriya Gandhi
			6. Gandhi Badi
			7. Malkhera
			8. Ninan
			9. Shahuwala
			10. Mehrana
			11. Chhani Bari
			12. Jhansal
			13. Biran

CHAPTER XII

LAW AND ORDER AND JUSTICE

INCIDENCE OF CRIME

Crimes in the district are classified into eight categories. The following table indicates the incidence of principal types of crimes in the district from 1958 to 1966[1] :

(Number)

	Dacoity	Robbery	Murder	Riot	Burglary	Cattle theft	Other theft	Miscellaneous, I. P. C. Cases	Total
1958	1	5	11	27	89	54	45	185	417
1959	3	29	48	19	265	85	190	513	1,152
1960	8	32	73	34	256	116	159	696	1,374
1961	15	68	75	49	386	109	234	777	1,713
1962	20	103	66	57	405	147	356	1,018	2,172
1963	19	137	67	66	436	151	382	1,256	2,514
1964	17	98	64	66	578	132	458	1,336	2,749
1965	7	88	70	95	396	102	417	1,560	2,735
1966	8	93	80	113	322	156	385	1,503	2,660

The table given above, shows that the number of crimes under all heads has been on the increase. The frequency of murders in this district is very high compared to other districts of Rajasthan. There has been a substantial increase in the number of more serious offences like dacoity, robbery and theft and is a cause for concern. The total number of offences committed in 1958 was only 417, which reached its climax to 2,749 in 1964. The increase in crimes can be attributed to varied reasons.

Firstly, Ganganagar is a border district having common interprovincial and international borders, and this favourable geographical position

1. *Statistical Abstract, Rajasthan*, yearly volumes, 1959 onwards.

renders it easy for the criminals to commit serious offences in Ganganagar and run to the neighbouring districts of the Punjab and Haryana to escape the hands of justice. Secondly, with rising prosperity in this area money and liquor are available in abundance, consequently resulting in a greater propensity towards crime and factional rivalry. More often than not, even petty quarrels result either in murder or grievous hurt. Thirdly, thanks to the Gang Canal, land values have arisen enormously and cases of disputes over possession of land, over tresspasses, over cultivable land and over utilisation of canal water irrigation, are registered in a large number. Fourthly, family feuds in this area are common and deep-rooted. Some times they result in a chain of murders and other serious crime. Fifthly, the people in the area are more keen to possess arms either by means of a regular licence or illicitly they purchase country-made arms manufactured by indigenous persons, and possession of arms provides an impetus to crime. Sixthly, swifter means of transport now available in the area enable the offenders to get away from the actual scene of the crime before it is reported or detected. Further more, Ganganagar employs a large number of migratory agriculture labour from adjoining districts. These labourers, when not actively engaged in the field, take to minor offences. Above all, the international border on west has further accentuated the problems of infiltration, and aids cattle-lifting and smuggling.

The statement given below reveals the position regarding stolen property and the property recovered by the police during 1958 to 1966[1]

(Rupees)

Year	Property stolen	Property recovered	Percentage of recovery to property stolen
1958	3,39,032	1,02,572	30.55
1959	3,97,388	1,24,042	31.21
1960	6,02,850	2,12,929	35.32
1961	6,68,472	1,91,814	29.69
1962	7,95,810	3,81,941	47.99
1963	8,71,525	3,42,399	39.3
1964	7,49,582	4,18,651	55.9
1965	5,98,255	3,71,960	62.2
1966	7,39,719	4,12,712	55.8

1. *Statistical Abstract, Rajasthan*, yearly volumes 1959 onwards.

As Ganganagar is a border district cases of smuggling and border offences are also reported. It is difficult to know the extent of smuggling as the border with Pakistan is long and many cases inevitably escape detection. The following figures, however, disclose the number of smuggling and cattle theft cases recorded during the five year period from 1962 to 1966[1] :

(Number)

Year	Cases of smuggling	Cattle theft
1962	36	89
1963	50	75
1964	55	52
1965	27	34
1966	65	82

The above figures as disclosed by the District Police Authorities have shown both upward and downward trend during the period. The decrease in the offences in 1965 may be attributed to the outbreak of hostilities with Pakistan which resulted in more effective patrolling.

ORGANISATION OF POLICE FORCE

Historical Background

The security of life and property of the people and the maintenance of peace and law and order are the primary responsibilities of any State administration and for which an efficient police force is necessary. It would be worthwhile, therefore, to trace the history of its growth. The present district of Ganganagar, with certain changes from time to time in its territorial limits, formed part of Northern Division of the erstwhile Bikaner State. The setting up and development of police organisation in the district, therefore, is linked with the growth of Police Department in Bikaner State where the police duties till quite recently were performed by the local militia and the Jagir militia in their respective jurisdiction. With a view to securing regular registration and efficient detection of crimes, the department known as the *Girai* was placed under a Superintendent. This arrangement was primarily made to maintain law and order and keep peace on the triple border of the State. Before 1884, the police force was too small to deserve this name and was neither well organised nor efficient. Not only that, the State was indifferent to taking action against a class of

1. Source : Office of the Superintendent of Police, Ganganagar.

people called *Surnas (Sandharis)* who, encouraged crime in the State by actually carrying on the nefarious trade of harbouring robbers.

A police contingent was also stationed at the District Headquarters but its strength was insufficient. The *Kotwal*, who was the head of a police station, was empowered to imprison offenders for four months and impose a fine of Rs. 50. The police force at that time enjoyed an unenviable reputation of being corrupt and lacking in moral rectitude. One convenient method of extorting money was to implicate respectable persons by accusing them of adultery extracting several thousands of rupees from them. Detention without trial was common. The accused could be set free at any stage if he bribed the *Kotwal* handsomely.

Each District Headquarter had a *Thana* under a Tahsildar which had a small police force consisting of some *Sowars* and footmen who had hereditary claims to service. *Sowars* being illiterate, sent oral reports to the Tahsildars.

Re-organisation of Police in 1885

The Police Department was for the first time, re-organised by Maharaja Dungar Singh (1872-1887 A.D). To begin with, the State Government increased the number of police stations *(Thanas)*, established several police out-posts in the whole state and put them under the general supervision of the respective Tahsildars. Each police station was placed under the charge of literate Police Sub-Inspector. He gave priority to the investigation of dacoity cases, and then sent them to the Tahsildar for final disposal. For supervising the work of the Sub-Inspector, two *Girdawars* were appointed for Reni and Suratgarh *Nizamats* which, with minor alterations, now form the present district of Ganganagar. For each police station there was a Sub-Inspector, three *Sowars*, two camel riders and one criminal investigation detective. The department was placed under the overall charge of a Police Superintendent. The total police strength in 1889-90 was 742. A Police Code was prescribed in April, 1889 to regulate the recruitment, discipline and other matters in the police organisation.

Improvements under Regency Council (1887-1898)

The number of police stations and out-posts in the State was increased to 70 in 1893-94, of which 58 were police stations and 12 out-posts. A large number of *Baories* (criminal tribe) were bound down for

good behaviour and it had a salutary effect on the crime situation of the State. In order to improve the efficiency of the police, the salaries of all the police officials were raised. In 1893-94, 22 police stations in the district were located at the following places[1] :

S.No.	Tahsil	Police Stations *(Thanas)*
1.	Bahadaran	1. Bhirani 2. Mahrana 3. Bahadaran 4. Netrana
2.	Hanumangarh	1. Hanumangarh 2. Tibbi 3. Dhaban 4. Dudewala
3.	Nauhar	1. Nauhar 2. Phephana 3. Pallu
4.	Mirzawala	1. Mirzawala 2. Beran 3. Dhanur
5.	Suratgarh	1. Suratgarh 2. Thukrana
6.	Anupgarh	1. Lakha Hakim 2. Rer 3. Sherpura 4. Sakhi 5. Chatargarh 6. Anupgarh

Improvements under Maharaja Ganga Singh (1887-1943)

Various measures were adopted by Maharaja Ganga Singh (1887-1943) to improve the working of the Police Department from time to time. In 1903, a Police Training School was started to prepare local residents for service in this department, but it did not prove useful, and had to be closed. The following year in 1904-05 the police force was thoroughly

1. *Report on the Administration of Bikaner State*, 1893-94, pp. 19-21.

re-organised at an additional cost of Rs. 12,787. The inspectors, sub-inspectors, head constables and *Sowars* (horse men) were armed with swords and batons and their pay scale was revised. The designation of the Police Superintendent was changed to that of Inspector General of Police of Bikaner State and he was made responsible for the supervision and efficient working of the entire police force in the State. Certain changes and improvements were again effected in 1914 and 1916. In 1916, a Superintendent of Police was appointed for each of the two *Nizamats* of Reni and Suratgarh to control and supervise the police work in his *Nazamat* and to co-operate with the *Nazim* in the maintenance of law and order. The headquarters of police inspectors were changed from Suratgarh and Sujangarh to Hanumangarh and Nohar respectively, from where they could better assist the Superintendent of Police in exercising effective supervision over the police stations. The total strength of police force in the State as a whole was increased to 1,119. An examination for sub-inspector was prescribed in 1920 and steps were taken to recruit and prepare local men for service in the Police Department. The Police Training School was re-opend in February, 1922 and thereafter the examination became a regular feature[1]. All new recruits underwent one year's course of training in Police Lines at Ganganagar, where elementary law and procedure, drill and use of arms, were, taught. All recruits before their regular appointment had to qualify themselves in musketry. At the end of the training period they were examined both in law and other practical aspects of police work by a board including a judge of the Bikaner High Court. Successful candidates were noted down for promotion to higher rank. Besides the main Police Training School at Ganganagar, a recruit school was also run to impart preriminary training to new entrants in the police service.

Police Act, 1922

In May 1922, the Bikaner Police Act came into force repealing the Police Code of 1889. The new Act provided for the organisation, powers and functions of the police force. The Inspector General of Police was made incharge of the Police Department in the State. He was assisted by Superintendents of Police in each *Nizamat*. Deputy Superintendents of Police and Inspectors of Police assisted the Superintendent of Police. The powers to appoint and dismiss senior officers vested in the Ruler. The Inspector General of Police had the power to frame rules and regulations regarding recruitment, organisation,

1. *Four Decades of Progress in Bikaner*, 1937, p. 82.

classfication, discipline, etc., of the police force, subject to the approval of the Ruler of Bikaner State. Additional police contingent could be kept in disturbed or dangerous areas as a temporary measure.

Subsequent Changes

For purposes of police administration the State was divided in 1926–27, into four districts-Bikaner, Sujangarh, Rajgarh and Suratagarh. Suratgarh and a part of Rajgarh district comprised the area of Ganganagar district. Each district was placed under a Deputy Superintendent of Police, who was responsible for the maintenance of law and order within his jurisdiction.

In 1929–30 a Director General, Intelligence was appointed to organise an efficient Criminal Intelligence Branch of the police and to serve as a liaison officer between its two wings, namely preventive and detective and thereby increasing the efficiency of both.

Further re-organisation of the Police Department was carried out in 1934 by one Mr. Hardinge, a senior officer of the Indian Police, whose services were borrowed by the then Bikaner State from the Punjab Government. It was considered necessary due to large increase in population of the State as a result of the advent of the Gang Canal System which ushered in great economic prosperity in the region. Substantial increase was made in the pay scales of all ranks with the result that better type of persons offered themselves for recruitment as constables and officers. The Criminal Investigation Department was thoroughly re-organised. The State Police till then armed with obsolete weapons was supplied more modern arms and equipment. This process continued upto 1947, by which time it could be said that the State police force was well armed and adequately mobilised.

Re-organisation in 1946-47

In 1946-47, the State was divided into six districts for purposes of Police Administration. The present area of Ganganagar district was included in Suratgarh, Ganganagar and Rajgarh districts. Each district was placed under a Superintendent of Police. He was assisted by Circle Inspectors. In each police station there were usually one sub-inspector, ond head constable, a few constables including one literate constable and some *Sowars*, and a *Khoji* (tracer). Each out-post had one head constable, one literate constable, some *Sowars*, constables and a *Khoji*. Sub-Inspectors and ordinary constables were responsible for investigation of crime

while literate constables were responsible for the office work of the police station.

Condition on the eve of Integration

In 1946-47, the total strength of the police force in the erstwhile Bikaner State was 2,310 as compared to 1,237 in 1926-27. The number of police stations and out-posts as in the past in the whole of Bikaner State is given below :

	1886-87	1893-94	1926-27	1936-37	1946-47
Police Stations	34	58	55	55	62
Police out-posts	20	12	20	14	19

The expenditure on police also increased considerably as is clear from the following figures :

	(Rupees)
1916-17	1,76,208
1926-27	2,86,891
1936-37	4,95,465
1946-47	9,31,078

Extradition Treaties

With a view to checking crime on the Bahawalpur-Bikaner border, the rulers of erstwhile Bikaner State adopted the co-operetive rules then in force in Bahawalpur State and the adjoining British districts. Under these rules the police officers of the two States could meet and inter-change information about bad characters in their respective jurisdictions and also hand over the accused and the stolen property without going through the tedious formality of extradition and consequent lengthy correspondence. After Independence extradition was no longer required as there were no inter-state restrictions on investigation or detection of crime.

Criminal Tribes

Baories, Minas and *Thories* were the principal criminal tribes in the erstwhile Bikaner State. They were often maintained and employed by the robber *Thakurs* who supplied them with horses and camels and

secreted their plunder. Attempts were, therefore, made to keep these criminal tribes who were habitual robbers under surveillance. A regular system of control and supervision was introduced in 1905-06, and it was revised from time to time. The Inspector General of Police of the State was made responsible for keeping a check over their movements and for exercising effective control over them. Provision of agricultural facilities like *Taccavi* advances and free land to the members of these tribes also resulted in weaning them away from crime by making them turn to agriculture. All these measures led to considerable improvement in the criminal practices of these tribes.

Police Organisation after the formation of Rajasthan

After the formation of Rajasthan, district Ganganagar was placed in the Bikaner Range. It was divided into five circles, 20 police stations and 11 out-posts. Besides, Reserve Police Lines, and the City and Traffic Control Police were stationed at the district headquarters. The district police worked under the Superintendent of Police who was assisted by three Deputy Superintendents of Police. Each Deputy Superintendent of Police was made incharge of a police circle. A list of circles, police stations and out-posts is given in Appendix I.

Present Set-up

Subject to the orders of the Government and the Inspector General of Police in their respective spheres of authority, the direction and regulation of the police force throughout the district is vested in the Superintendent of Police as the executive head of the police force in the district. His control over it extends to such matters as discipline, provision of arms, drill, prevention and investigation of crime, prosecution and other aspects of executive detail. He is under the administrative control of the Deputy Inspector General of Police, Bikaner Range and also works in close association with and under the general supervision of the District Magistrate.

Existing Strength

The strength of the police force in Ganganagar district is divided into two main categories viz., the Civil Police and the Armed Police. The Armed Police deals mainly with dacoits, robbers and smugglers. It may go into action when a breach of peace is threatened. The total sanctioned strength of the police force as existing in 1966, includes one Superintendent of Police (Officer-in-charge), one Additional Superintendent of Police, three Assistant/Deputy Superintendents of Police, seven inspectors, 50 Sub-Inspectors of Police, 39 Assistant Sub-Inspectors of Police, 145 Head Constables of Police, and 964 constables.

The present strength of the Armed Police (1966) consists of one Inspector (Reserve), one Reserve Sub-Inspector, 48 Head Constables and 242 constables. The present staff of the Civil Police (1966) includes two Circle Inspectors, one Prosecuting Inspector, three Inspectors, 41 Sub-Inspectors, 39 Assistant Sub-Inspectors, 97 Head Constables and 722 constables.

For purposes of police administration, the entire district is divided into five circles, viz., Ganganagar, Karanpur, Raisinghnagar, Hanumangarh and Nohar. Ganganagar circle comprises of four police stations, Karanpur three, Raisinghnagar four, Hanumangarh seven, and Nohar of three. There are in all 21 police stations and 16 out-posts. The distribution of police circles, police stations and out-posts is as follows[1] :

S.No. Circles	Police Stations	Out-posts
1. Ganganagar	1. Ganganagar *Kotwali*	1. Ganganagar
		2. Goushala Road
		3. Purani Abadi
	2. Sadar	4. Matili Rathan
	3. Chunawad	
	4. Hindumalkot	
2. Karanpur	5. Karanpur	5. Karanpur Town
	6. Kesrisinghpur	
	7. Padampur	6. Ghanurwali
3. Raisinghnagar	8. Raisinghnagar	7. Raisinghnagar Town
		8. Gajsinghpura
		9. Lakha Hakam
	9. Anupgarh	
	10. Gharsana	10. Bijainagar
	11. Muklawa	
4. Hanumangarh	12. Hanumangarh Town	
	13. Hanumangarh Junction	
	14. Sadulshahr	
	15. Sangaria	11. Dhaban
	16. Tibi	
	17. Suratgarh	12. Thukrana
		13. Lakhuwali
	18. Rawatsar	14. Pallu
5. Nohar	19. Nohar	15. Phephana
	20. Bhadra	
	21. Bhirani	16. Mehrana

1. Source : Office of the Superintendent of Police, Ganganagar.

Duties of Officers

Duties of police officers from the Superintendent of Police down to the constable are laid down in the Rajasthan Police Manual applicable in the district. Police officers have also to perform certain special duties under special laws and Acts in aid of other departments. Additional Superintendent of Police and three Deputy Superintendents of Police are incharge of both Armed as well as Civil Police. They work under the control of the District Superintendent of Police.

Appointments

The Indian Police Service Officers who generally occupy the posts of Superintendents of Police are appointed by the Union Government, but they are allotted to the State Government which makes their posting, transfers and exercises disciplinary and administrative control. Appointments of Deputy Superintendents of Police are made by the State Government on recommendations of Rajasthan Public Service Commission. Subordinate police staff are either directly recruited or promoted from lower ranks by the Inspector General of Police, Rajasthan.

Auxiliary Organisations

SPECIAL POLICE ESTABLISHMENT DIVISION—(Central Bureau of Investigation, Ministry of Home Affairs, Government of India)–This office, headquartered at Jaipur, is headed by a Superintendent whose jurisdiction extends to whole of Rajasthan. There is no separate staff for Ganganagar district. The establishment mainly deals with the cases of bribery and corruption against the employees of Central Government. Other matters which come within its purview are under Import and Export Control Act, 1947, Foreign Exchange Regulations Act, 1947, Essential Commodities Act, 1955 and Defence of India Act, 1962.

Anti-Corruption Squad

In 1960, a separate unit of the Anti-Corruption Department of Police was established at Ganganagar under a Deputy Superintendent of Police assisted by a Sub-Inspector, one Head Constable, 4 Constables, one clerk and one driver. 955 complaints pertaining to the area were registered from 1957 to 1966, out of which, enquiries in 897 cases were completed by the end of the year 1966-67.

Traffic Police

Traffic police establishment consisting of a Sub-Inspector, two Head Constables and 16 constables, was sanctioned in 1962. Prior to it traffic control arrangements were made by the reserve force of the district but now, specially trained constables are posted in the towns of Ganganagar and Hanumangarh to control the traffic. This branch of the District Police is placed under the direct control of the Superintendent of Police, and forms a part of the Civil Police sanctioned for the district.

Challani Guards

There are five *Challani* guards at Hanumangarh, Nohar, Raisinghnagar, Karanpur and Suratgarh in this district with the sole task of escorting the undertrials from police custody to judicial courts and vice-versa.

Civil Defence Unit

A Civil Defence Unit is functioning under the direct control of the Collector, Ganganagar. It imparts elementary Civil Defence Training to local citizens and makes civil defence arrangements for rural and urban areas during any emergency, and for that purpose, it keeps liaison with *Sarpanchas* and *Panchas* of village *Panchayats*. During the 1965 emergency (i.e. at the time of the Pakistani aggression in 1965), the citizens trained by this unit kept watch on railway lines and bridges etc.

The following steps taken to protect life and property in remote areas of the district during the hostilities with Pakistan in 1965 are worthy of special mention :

(i) *Patwaris*, *Sarpanchas* and Revenue Officers were entrusted with the job of keeping the Government fully informed of any untoward happening;

(ii) In the villages lying along the border, rifles were distributed by the Government to local populace;

(iii) Elementary Civil Defence Training was imparted to the villagers who organised themselves into groups for patrolling etc.

The following Civil Defence services were organised during the (1965) emergency :

A. Warden Services, B. Communication, Combined Control and Sub-Control Centre & Lighting Restriction, C. Rescue Services, D. Combined Depot and Transport Services, E. Fire Fighting Services, F. Corpse Disposal Services, G. Welfare Services and Supply Services.

These arrangements for Civil Defence helped in boosting the morale of the local population against the threat posed by a neighbouring country.

RAILWAY POLICE

The Railway Police establishment in the district falls under the jurisdiction of the Superintendent of Railway Police, Ajmer. From the point of view of Railway Police establishment, Ganganagar is grouped as a circle with one police station and three out-posts. At present (1966) the strength of Railway Police at Police Station Hanumangarh and at Out-posts Ganganagar, Suratgarh and Swarupsar is as follows :

(Number)

Railway Police Station/ out-post	Sub-Inspector	Head constables	Constables
Railway Police Station, Hanumangarh	1	2	24
Railway Police out-post, Ganganagar	—	1	3
—do— Suratgarh	—	1	6
—do— Swarupsar	—	1	3
Total strength	1	5	36

The following statement reveals that in recent years there has been practically no increase in the number of crimes on railways within the district and position remained almost static. Cases of ticketless travelling are not included here.

(Number)

Year	Theft in running trains	Theft at station	Theft at goods yards	Misc. crimes	Total crimes
1951	6	20	1	18	45
1955	3	13	5	20	41
1959	2	12	3	28	45
1963	8	18	4	40	70
1965	11	18	6	52	87

A statement showing number of crimes at 49 railway stations in the district from the year 1951 to 1965 is given in Appendix II.

JAIL ADMINISTRATION

The condition of Jails in former Bikaner State in early 19th Century was deplorable. Prisoners were confined in the *Kotwali* or in Napasar Jail situated within the fort of Bikaner city. Maharaja Ganga Singh (1887-1943) sought to make some improvements from time to time in the jail administration. The jail department was separated from the police and put under the Chief Medical Officer, Bikaner who was also responsible for administration of jails and sub-jails located at *Nizamat* and district headquarters. Living conditions for the inmates were improved and new jails were opened at *Nizamat* (Division) and District Headquarters. Welfare activities such as medical aid, education and sports for the prisoners were also started. A visitors committee was appointed to point out defects and suggest reforms in the working of the jails.

District Jail, Ganganagar

District Jail, Ganganagar is a class B Jail and is situated near the District Courts. It is an old building in which certain additions and alterations have been made to make it more suitable for jail purposes according to modern standards. Nearly 200 convicts can be housed in this building which is divided mainly in two wards, one for under-trials and the other for convicts. Convicts, who are senteneed upto three years imprisonment, are lodged in the Ganganagar district jail. Those who are sentenced for a longer term are transferred to the Central Jail, Jaipur. Female and juvenile prisoners are kept separately. A room is reserved for political prisoners. The inmates are released on parole and furlough to keep in touch with their kith and kin. They are allowed to write letters and interview their relatives.

Welfare of Prisoners

Medical aid to the prisoners is provided by a part-time doctor and a permanent compounder. A Welfare Officer, appointed by the Social Welfare Department, looks after the welfare of the prisoners and he attends to their grievances. A part-time teacher is employed to impart literacy to adult prisoners. Other amenities like sports, games and daily physical exercises are provided to keep them cheerful. News papers and periodicals are also being supplied to them. A Visitors Committee has been constituted by the State Government to inspect the jail and recommend improvements and reforms for the welfare of the inmates.

Jail Discipline

No major case of rioting or unrest among prisoners has been recorded in recent years. Prison discipline is maintained in accordance with the rules laid down in the Jail Manual prescribed by the State Government. The prisoners are classified into A, B and C categories.

Jail Industry

The prisoners, lodged in the jail, are trained in many kinds of crafts. They utilise this training to earn daily wages which are not spent but allowed to accumulate in order to help them to settle down in life after their release. Those prisoners who attain proficiency in particular crafts are given merit certificates so that they may be able to secure jobs when set at liberty. A small factory for manufacturing durries and *Niwar* is run by the jail authorities on a marginal profit.

Jail Population, Income and Expenditure

An annual statement of jail population, income and expenditure, year-wise, for the last seven years, i.e. 1959-60 to 1965-65, is given below[1].

Year	Average daily population	Annual expenditure (Rupees)	Annual income (Rupees)
1959–60	188	74,716	598
1960–61	134	73,696	714
1961–62	174	87,894	448
1062–63	160	85,912	10,185
1063–64	146	1,80,061	11,231
1064–65	145	1,05,027	9,348
1065–66	146	1,07,809	12,662

Sub-Jails

Sub-jails in the district are located at Hanumangarh, Karanpur, Raisinghnagar, Nohar and Bhadra.

Sub-jails classified as class C Jails are directly administered by the Assistant Jailors who are responsible to the Inspector General of Prisons, Jaipur. In each sub-jail one head warder and a few warders

1. Source : Office of the Deputy Superintendent, District Jail, Ganganagar.

assist the Assistant Jailor. The Sub-Divisional Magistrates concerned are empowered to exercise supervision over sub-jails. They usually house inmates who are under trial and after their conviction by the court they are sent to the District Jail. A few medical, educational and welfare facilities are also provided to them. Members on the District Visitors' Committee inspect the sub-jails and recommend improvements and reforms for the welfare of the inmates.

No instance of any disorderly behaviour on the part of the prisoners during recent years has been reported. Jail discipline is maintained as laid down in the Rajasthan Jail Manual. The following table would show the total number of prisoners and undertrials in the sub-jails during the last three years[1] :

(Number)

Sub-Jail	Total Jail population		
	1962-63	1963-64	1964-65
Hanumangarh	502	554	653
Karanpur	378	498	648
Raisinghnagar	496	349	558
Nohar	222	184	184
Bhadra	—	74	150

Open Air Camp, Anupgarh

An Open-Air Camp for prisoners was started at Anupgarh during the year 1963-64 for digging the Rajasthan Canal and 140 convicts serving different terms of sentences were sent there from different jails of Rajasthan. The prisoners are paid Rs. 2 to Rs. 5 per day as wages by the Rajasthan Canal Board which they are allowed to keep to themselves. They are also allowed to keep their families with them. An Assistant Jailor, designated as officer-in-charge, controls the Open Air Camp for prisoners at Anupgarh.

JUDICIARY

Historical Sketch

Up to the first half of the 19th century there were hardly any Courts of Justice in the erstwhile Bikaner State. Judicial administration

1. Source : Offices of various sub-jails in Ganganagar district.

at that time was loose. The chief permitted all sorts of persons to interfere in both civil and criminal cases and a few words sent through a *Gola* or slave were sufficient to subvert the decision of the minister in any case or under any circumstances[1].

Establishment of Courts

Regular courts were established in the year 1871 during the reign of Maharaja Sardar Singh when the State Council (also established in 1871) in the exercise of its legislative and judicial powers created three central courts-Revenue, Criminal and Civil. Appeals against the decisions of these courts lay to the State Council, which was the highest appellate court and against their decision a petition could be submitted to the *Ijlas-e-khas*. Besides, 14 tahsil courts were also established, out of which Suratgarh, Anupgarh, Mirzewala, Hanumangarh, Nohar and Bhadra were located in the present Ganganagar district[2].

In each tahsil there was a tahsildar, and at some places he was assisted by a *Naib* tahsildar also. Tahsildars were of two categories, those exercising first class powers and thus empowered to hear criminal cases and award imprisonment up to three months or a fine up to Rs. 50 and those exercising second class powers and competent to award imprisonment upto one month or a fine up to Rs. 30. No such distinction existed in revenue cases.

This pattern, however, did not improve matters. Influential people, close to the ruler, interfered with and influenced the course of legal proceedings. There did not exist any set procedure to be followed in the trial of civil and criminal cases. Imposition of indiscriminate fine was freely resorted to add to the earnings of the State and did not meet requirements of criminal justice. Even judicial officers extracted money from the under-trials[3].

Nizamat Courts

There existed no courts of appeal at that time in the area, which caused great inconvenience to the litigant public. They had to travel long distances to seek justice from the courts situated at Bikaner. In the year 1884-85, Central Civil and Criminal Courts at Bikaner were abolished and four *Nizamats* were created, out of which *Nizamat* Courts

1. Powlett, *Gazetteer of the Bikaner State*, reprint (1935), p. 104.
2. Munshi Sohan Lal, *History of Bikaner*, p. 279.
3. *ibid.*

at Reni and Suratgarh encompassed the present area of Ganganagar district. These courts were invested with powers in judicial matters similar to those exercised by the Central Courts, which were now superseded. The *Nizamat* Courts were placed under the general control of the head of Revenue Department, but appeals against the decisions of *Nizamat* Courts in civil and criminal cases lay only to the Appellate Court which was invested with judicial powers of the State Council[1].

The *Nizamat* court was presided over by the *Nazim* who was empowered to hear suits not exceeding Rs. 10,000 in value, and on the criminal side, he could inflict a sentence of imprisonment not exceeding five years and a fine not exceeding rupees five hundred. He could hear appeals against the decisions of Tahsildars under him[2]. As he was also responsible for the general administration of the district, he combined in him both, executive and judicial authority. Subordinate to him were the courts of Tahsildars who could hear criminal and civil cases up to a specified limit determined by the ruler. In some places the Tahsildar was assisted by a *Naib* Tahsildar who could try petty cases.

Appellate Court

Appeals against the decisions of *Nazims* (District Officer) were heard by the Appellate Court which was constituted at the very outset by the Regency Council (1887 to 1898) of Maharaja Ganga Singh (1887-1943). It disposed of all civil, criminal and revenue appeals. It could refer cases to the Regency Council at Bikaner, the highest court of appeal.

In the beginning of the 20th Century the constitution of the judicial courts was as follows[3] :

No. of courts	Name of court	Powers	
		Criminal	Civil
1	2	3	4
1.	*Mahkma Khas* i.e. His Highness the Maharaja's Court	Powers to pass death sentence	Revision of the decisions of the Council
1.	Council	The highest judicial court next to *Mahkma Khas*	The highest judicial court next to *Mahkma Khas*

1. *Report on the Administration of the Bikaner State*, 1893–94, p. 106.
2. ibid., p. 107.
3. Erskine, K.D., *The Western Rajputana States and the Bikaner Agency*, 1909, P. 358.

1	2	3	4
1.	Appeal Court	Court of Sessions	Original suits upto any limit and appeals against the decisions of Ist class magistrates
4.	*Nazims* Court	Ist class magisterial powers	Original suits upto Rs. 10,000 and appeals against the decisions of the Sub-Courts
11.	Tahsildars Courts	2nd class magisterial powers	Original suits upto Rs. 500
1.	Bikaner City *Munsifs* Court	Nil	Original suits upto Rs. 500
1.	Honorary Magistrates Court, Bikaner	2nd class magisterial powers	Small Causes Court
8.	Naib-Tahsildars Courts	3rd class magisterial powers	Original suits upto Rs. 300
1.	Honorary Magistrates Court, Nohar	Nil	Small Causes Court

Chief Court

A chief court was established in 1910, with a Chief Judge and two other judges. It was the first step towards the separation of judiciary from the executive[1]. It had original, appellate and revisional powers in all civil, criminal and revenue cases along with supervisory powers over the working of lower courts. Consequent upon the establishment of the Chief Court the Appellate Court was abolished in 1910.

Rules and Regulations

In the administration of Justice, procedure followed by the courts in the erstwhile Bikaner State was governed by corresponding Rules and Regulations of the Government of India with certain modifications to suit local customs and usages or even idiosyncrasies and sense of social justice of the ruling prince.

1. *Four Decades of Progress in Bikaner*, 1937, p. 78.

High Court

A High Court of judicature was established at Bikaner in 1922 with original, appellate and revisional jurisdiction in civil and criminal matters[1]. It had the power to issue rules, circulars and other regulations for the guidance of all the subordinate judicial courts in the State. The High Court could hear appeals of every description, civil and criminal. Appeals from the High Court could be preferred in certain cases to the judicial committee of the Executive Council which, like the Privy Council of Great Britain, was the highest court in the State. Capital punishment could not be inflicted until and unless it was confirmed by the ruler.

Further Reforms

In 1922-23, Courts of District Judges and *Munsifs* were established at Bhadra and Hanumangarh. In consequence of these reforms, Revenue Officers were relieved of most of their civil and criminal powers, and the extent of jurisdiction of the District Judges and *Munsifs* was defined having due regard to the convenience of the people residing in different localities. In 1930, the Civil Courts Act was passed which further prescribed the functions of the civil courts and conferred larger powers on them[2].

The judicial system of Bikaner was thus brought to modern standards and continued so till 1940, when it was marked by further changes.

Re-organisation in 1940

In 1940, the following changes were made about in the constitution and jurisdiction of courts in the area[3] :

1. The Court of the District Judge, Suratgarh, was abolis hed and replaced by that of a *Munsif.*
2. The District Judge at Ganganagar was vested with the powers of an Assistant Sessions Judge, and he could try offences not punishable with death or imprisonment for life. He could also hear criminal appeals against sentences of imprisonment not exceeding three months or of fines not exceeding Rs. 100 passed by a 1st class magistrate and all types of sentences inflicted by the magistrates of the 2nd class. All the *Munsifs* and City Magistrates were vested with powers of a first class magistrate. The City Magistrate was also vested with summary

1. *Four Decades of Progress in Bikaner*, 1937, p. 78.
2. *ibid.*
3. *Report on the Administration of the Bikaner State*, 1939-42, p. 78,

powers under section 260 of the Code of Criminal Procedure of former Bikaner State for the trial of cases under the Municipal Act and Bye-Laws.

3. The District Magistrate, the Additional District Magistrate and *Nazim* in the Ganganagar division were completely relieved of all criminal work. The *Nazims* were empowered to try non-cognizable cases on complaints and *Challans* under section 107, 108, 109 and 110 of the Code of Criminal Procedure of the former Bikaner State.
4. The Tahsildars of Ganganagar division were empowered to try non-criminal cases except non-cognizable cases on complaints. The Tahsildars of Nohar and Anupgarh were to continue to try civil suits up to the value of Rs. 200.
5. Experienced Law graduates were appointed to work as Government advocates and public prosecutors at various Judicial Courts.

Thus in 1944-45 there were 41 criminal and 23 civil courts in the erstwhile Bikaner State[1].

Set-up after the formation of Rajasthan

After the integration some important changes were brought about in the judicial set-up of the area. The district was brought in line with other administrative units of Rajasthan. The judicial set-up in the area in 1950-51 was as follows:

Civil Courts

1. District Judge, Ganganagar.
2. The Civil and Additional Sessions Judge, Gangan
3. Civil Judge, Ganganagar.
4. Civil Judge, Suratgarh.
5. *Munsif*, Bhadra.
6. *Munsif*-Magistrate, Hanumangarh.

Criminal Courts

1. Sessions Judge, Ganganagar.
2. Additional Sessions Judge, Ganganagar.
3. District Magistrate, Ganganagar.
4. Additional District Magistrate, Ganganagar.

1. *Report on the Administration of the Bikaner State*, 1944-45, p. 76,

5. Sub-Divisional Magistrates, Ganganagar, Karanpur, Raisinghnagar, Hanumangarh and Nohar.

6. 1st Class Magistrates

   (a) Ganganagar

   (b) Karanpur

   (c) Raisinghnagar.

   (d) Hanumangarh (*Munsif*-Magistrate was given powers of 1st Class Magistrate).

7. Tahsildar Magistrates (almost all the Tahsildars in the then area were 2nd Class Magistrates). They could try such cases as were transferred to them by the Sub-Divisional Magistrates.

Present Position

After the formation of Rajasthan all Collectors of districts were appointed District Magistrates by virtue of their offices. Similarly all Assistant Collectors in-charge of Sub-Divisions were appointed Sub-Divisional Magistrates and all Tahsildars were given the powers of Magistrates of the 2nd Class or 3rd Class. Where criminal case work was heavy, Extra First Class Magistrates were appointed.

On the criminal and revenue side the present position in Ganganagar is as follows:

The Court of the Collector, Ganganagar as District Magistrate is subordinate to the District and Sessions Judge in criminal matters but is at the apex of the district revenue courts. Due to heavy pressure of work there is also an Additional District Magistrate at Ganganagar. Subordinate to the District Magistrate, in the exercise of both criminal and revenue jurisdiction, are the Sub-Divisional Magistrate (Criminal) cum-Sub-Divisional Officers (Revenue) at Ganganagar, Hanumangarh, Nohar, Karanpur and Raisinghnagar. They enjoy powers of First Class Magistrates. Below the Sub-Divisional Magistrates and officers in both criminal and revenue matters, are the courts of twelve Tahsildars vested with 2nd class or 3rd class magisterial powers. There are *Munsif*-Magistrates at Hanumangarh, Bhadra and Ganganagar. The jurisdiction of the courts of *Munsif*-Magistrates extends over both civil and criminal side. Besides, there is an Assistant Collector at Ganganagar who also exercises powers of a first class magistrate and hears criminal cases coming from Ganganagar town only.

Principal Court

On the judicial side the district is placed under the control of the District and Sessions Judge, Ganganagar, whose territorial jurisdiction extends all over the district. It is the principal court of original and appellate jurisdiction within the district in both civil and criminal cases. The District Judge is empowered to exercise general control and supervision over all the civil courts in the district and their establishment and he is also authorised to inspect their working periodically. Under article 223 of the Indian Constitution, appointments and postings of the District Judges are made by the Government in consultation with the High Court of Rajasthan. Members of the State Judicial Service are appointed to preside over subordinate courts by the Governor in accordance with rules made by him in consultation with the State Public Service Commission and the High Court. The High Court of Judicature in Rajasthan located at Jodhpur exercises sole administrative authority over the District Court in Ganganagar and courts subordinate to it. In addition to the District Judge there is one Civil and Additional Sessions Judge stationed in Ganganagar. His jurisdiction is co-terminus with that of his immediate superior.

One Civil and Assistant Sessions Judge has also been posted at Ganganagar whose jurisdiction on criminal side extends all over the district while on the civil side he hears appeals coming from the Sub-Divisions of Ganganagar and Karanpur. There is one Civil Judge and First Class Magistrate posted at Suratgarh. His civil jurisdiction extends over tahsils of Suratgarh, Raisinghnagar and Anupgarh. On the criminal side he hears cases only from Suratgarh tahsil of the Hanumangarh Sub-Division.

A Civil and Assistant Sessions Judge having jurisdiction over Hanumangarh, Sangaria, Tibi, Sadulshahr, Nohar and Bhadra tahsils has been posted at Hanumangarh. His jurisdiction on criminal side extends over the entire district. Courts of *Munsif* Magistrates are functioning at Ganganagar, Hanumangarh and Bhadra.

On the civil side the territorial jurisdiction of *Munsif* Magistrate Ganganagar, extends to Ganganagar sub-division and Karanpur and Padampur tahsils. While on the criminal side it extends over the whole sub-division of Ganganagar. The *Munsif* Magistrate, Hanumangarh, has been empowered to hear cases, both civil and criminal from tahsils Hanumangarh, Sangaria, Tibi and Sardarshahr. Territorial jurisdiction

of *Munsif*-Magistrate, Bhadra, covers Nohar and Bhadra tahsils. The total strength of judicial courts in Ganganagar is as follows :[1]

S. No.	Court	Place of Headquarters
1.	District and Sessions Judge	Ganganagar
2.	Civil and Additional Sessions Judge	Ganganagar
3.	Civil and Assistant Sessions Judge	Ganganagar
4.	Civil and Assistant Sessions Judge	Hanumangarh
5.	Civil Judge and Magistrate 1st class	Suratgarh
6.	*Munsif*-Magistrate	Hanumangarh
7.	*Munsif*-Magistrate	Bhadra
8.	*Munsif*-Magistrate	Ganganagar

A statement containing detailed description of the subordinate staff attached to the district judiciary is given in Appendix III.

A consolidated statement showing institution and disposal of criminal cases of Ganganagar judgeship for the years 1961-62 to 1965-66 appears in Appendix IV.

Legal Profession

There are seven Bar Associations in the district located at Ganganagar, Hanumangarh, Nohar, Karanpur, Raisinghnagar, Bhadra and Suratgarh. The Ganganagar Bar Association is the oldest in the district and was formed in 1928-29. It started with a membership of eight legal practitioners but in 1966 the membership had gone upto 75. The reason for this increase can be attributed to heavy and ever expanding case work in different judicial courts.

The Bar has its own constitution under which an executive committee consisting of a President, a Vice-President, a Secretary, a Joint

1. Source : Office of the District and Sessions Judge, Ganganagar.

Secretary and a Treasurer is elected. A good reference library of the Bar Association is open to legal practitioners. Some of the members of the Bar actively participated in the freedom movement and a few others have attained high positions in public life.

NYAYA PANCHAYATS

With the introduction of the Democratic Decentralisation in Rajasthan in 1959, Nyaya Panchayats have been established. They are vested with both civil and criminal jurisdiction and are competent to try minor criminal offences and civil suits up to Rs. 250 in valuation. The constitution, powers, functions and location of Nyaya Panchayats, have been comprehensively described in the chapter on Local Self Government.

APPENDIX I

List of Police Circles, Police Stations and Out-Posts of District Ganganagar in 1951[1]

S. No.	Name of Circles	Name of Police Stations	Name of Out-Posts
1.	Ganganagar	1. Chunawad	
		2. Ganganagar	
		3. Hindumalkot	
		4. Kotwali (Ganganagar)	1. Ganganagar
		5. Kesrisinghpur	
2.	Karanpur	6. Karanpur	
		7. Muklawa	
		8. Padampur	2. Ghanurwali
3.	Nohar	9. Bhadra	
		10. Bhirani	3. Mehrana
			4. Phephana
		11. Naulkhi	
		12. Nohar	5. Mandirpur
4.	Raisinghnagar	13. Anupgarh	
		14. Gharsana	
		15. Raisinghnagar	6. Gajsinghpur
			7. Lakkha Hakim
5.	Sadulgarh	16. Rawatsar	
		17. Sadulgarh	8. Sadulgarh
		18. Sangaria	9. Dhabarn
		19. Suratgarh	10. Lakhuwali
		20. Tibi	11. Tukhrana

1. *Set-up of General Administration*, Government of Rajasthan, 1951, pp. 57-58.

APPENDIX II

Crimes at Railway Stations, Ganganagar District[1]

(Number)

S. No.	Names of Stations	1951	1955	1959	1963	1965
1	2	3	4	5	6	7
1.	Hanumangarh Junction	4	5	12	7	27
2.	Sadulshahr	4	1	4	3	2
3.	Banwali	1	1	–	3	–
4.	Ganganagar	10	9	8	12	10
5.	Kesrisinghpur	1	1	–	–	–
6.	Dalpatsinghpur	1	1	–	2	1
7.	Karanpur	5	6	2	2	4
8.	Jorawarpura	1	–	–	1	1
9.	Raisinghnagar	2	–	–	2	4
10.	Jaitsar	2	1	–	1	–
11.	Sarupsar	1	2	–	2	1
12.	Kalyankot	1	–	–	–	–
13.	Bijainagar	2	–	1	–	–
14.	Ramsinghpur	1	–	–	1	–
15.	Pilibangan	1	–	–	2	1
16.	Rangmahal	1	–	1	–	–
17.	Suratgarh	5	3	4	8	8
18.	Viradval	1	–	–	–	3
19.	Anupshahr	1	–	1	–	–
20.	Dholipal	–	–	1	–	–
21.	Prithwirajpura	–	1	1	2	2
22.	Gajsinghpur	–	2	1	3	3
23.	Mohannagar	–	–	1	5	4
24.	Nohar	–	–	1	1	1
25.	Kalana	–	–	–	–	–

1. Source : Office of the Superintendent, Railway Police, Ajmer.

APPENDIX II—(concld.)

1	2	3	4	5	6	7
26.	Dabli	–	2	–	–	–
27.	Bhadra	–	1	–	2	–
28.	Gogameri	–	1	1	1	1
29.	Sardargarh	–	–	–	1	–
30.	Talwara Jhil	–	–	–	1	1
31.	Manaksar	–	–	3	3	–
32.	Sangaria	–	2	2	–	2
33.	Bhukaran	–	–	–	–	–
34.	Hanumangarh Town	–	1	–	–	2
35.	Hindumalkot	–	1	–	–	3
36.	Dhaban	–	–	1	–	–
37.	Sharekan	–	–	–	–	–
38.	Ramgarh Ujalbas	–	–	–	1	–
39.	Rajasar	–	–	–	1	2
40.	Tibi	–	–	–	1	–
41.	Diplana	–	–	–	–	1
42.	Chak Maharaj ka	–	–	–	1	1
43.	Kesavnagar	–	–	–	–	–
44.	Baror	–	–	–	–	–
45.	Raghunathgarh	–	–	–	–	–
46.	Khinania	–	–	–	–	1
47.	Anupgarh	–	–	–	–	–
48.	Budhisinghwala	–	–	–	1	1
49.	Fatehgarh-Jodhewala	–	–	–	–	–
	Total	45	41	45	70	87

APPENDIX III

Statement of staff attached to District Judiciary, Ganganagar[1]

S. No.	Name of the post	District and Sessions Court, Ganganagar	Civil and Additional Sessions Court, Ganganagar	Civil and Assistant Sessions Court, Ganganagar	Civil and Assistant Sessions Court, Hanumangarh	Civil Judge and Magistrate 1st Class Court, Suratgarh	*Munsif* Magistrate Court, Hanumangarh	*Munsif* Magistrate Court, Bhadra	*Munsif* Magistrate Court, Ganganagar	Total
1	2	3	4	5	6	7	8	9	10	11
	Class III									
1.	*Munsarim*	1	—	—	—	—	—	—	—	1
2.	Stenographer	1	1	—	—	—	—	—	—	2
	Upper Division Clerks									
1.	*Nazir*	1	—	—	—	—	—	—	—	1
2.	Sales Amin	1	—	—	—	—	—	—	—	1
3.	Record keeper	1	—	—	—	—	—	—	—	1
4.	Correspondence clerk	1	—	—	—	—	—	—	—	1
5.	Head copyist	1	—	—	—	—	—	—	—	1
6.	Reader	1	1	1	1	1	1	1	1	8

1. Source : Office of the District and Sessions Judge, Ganganagar.

APPENDIX III—(concld.)

1	2	3	4	5	6	7	8	9	10	11
	Lower Division Clerks									
1.	Criminal clerk	1	1	—	1	—	—	—	1	4
2.	Civil clerk	1	1	1	1	1	1	1	1	8
3.	Execution clerk	1	1	1	—	1	1	1	—	6
4.	Copyist	2	—	—	—	1	1	1	—	5
5.	Typist	1	—	—	—	—	—	—	—	1
6.	Relieving clerk	3	—	—	—	—	—	—	—	3
7.	Assistant Record Keeper	1	—	—	—	—	—	—	—	1
8.	Assistant *Nazir*	2	—	—	—	1	1	1	—	5
9.	Receipt and despatch clerk	1	—	—	—	—	—	—	—	1
10.	Weeder	1	—	—	—	—	—	—	—	1
	Class IV									
1.	Record lifter	1	—	—	—	—	—	—	—	1
2.	Camel *sowar*	4	—	—	—	4	4	4	—	16
3.	*Nazarat* peon	2	—	—	—	—	—	—	—	2
4.	Chowkidar	1	—	—	—	1	1	1	—	4
5.	Waterman-cum-*farrash*	1	—	—	—	—	—	—	—	1
6.	Orderlies	3	2	1	1	1	1	1	1	11
7.	Court peons	4	2	1	1	2	2	2	1	15

APPENDIX IV

Criminal Cases[1]

(Number)

Year	Previous Balance	Instituted during the year	Total	Disposed during the year	Balance
1961–62	1,475	5,648	7,123	5,372	1,751
1962–63	1,751	7,131	8,862	6,663	2,219
1963–64	2,146	7,337	9,483	6,487	2,996
1964–65	3,002	6,971	9,973	6,700	3,273
1965–66	3,273	5,931	9,204	3,964	5,240

1. *Statistical Abstract*, Rajasthan, yearly volumes, 1963 onwards.

CHAPTER XIII

OTHER DEPARTMENTS

In this chapter is described the working of departments which have not been dealt with elsewhere.

STATE GOVERNMENT DEPARTMENTS

Rajasthan Canal Project

OFFICE OF THE EXECUTIVE ENGINEER, II DESERT DIVISION, SURATGARH—This office is responsible for the construction of Rajasthan main canal for a length of 11.2 km. So far, earth work, excavation of Suratgarh branch and all masonry work, i.e. bridges, syphones etc. on this branch have been completed. The office is headed by an Executive Engineer who is assisted by Assistant Engineers and other technical and ministerial staff.

OFFICE OF THE EXECUTIVE ENGINEER III DESERT DIVISION, SURATGARH—The division is concerned mainly with the excavation and lining of Rajasthan main canal from kilometre 61 to kilometre 77. The excavation work is almost complete and the lining work is in progress. The division is headed by an Executive Engineer who is assisted by five Assistant Engineers besides other technical and ministerial staff.

OFFICE OF THE EXECUTIVE ENGINEER, IV DESERT DIVISION, BIJAINAGAR—This division is entrusted with the construction of Rajasthan main canal from R.D. 240,000 to R.D. 2,90,000. Almost 50 per cent of the earth work has been completed. The remaining work is in progress. Hierarchical line of officials in this division comprises the Executive Engineer, four Assistant Engineers and 20 engineering subordinates in addition to usual complement of staff.

OFFICE OF THE EXECUTIVE ENGINEER, V DESERT DIVISION, SURATGARH—This division is working for the construction of Rajasthan main canal from R.D. 1,55,000 to R.D. 1,90,000 which also includes the construction of direct outlets, head regulator at R.D. 1,65,050 of the canal and other works like plantation along the canal. So far earth work, excavation of 11.2 km of the main canal and lining work for approximately 6.4 km has been completed and the head regulator is nearing completion.

The staff consists of an Executive Engineer, four Assistant Engineers, 21 engineering subordinates besides other complement of staff.

OFFICE OF THE EXECUTIVE ENGINEER, CENTRAL STORES DIVISION, SURATGARH—The division is dealing with heavy stores of Rajasthan Canal Project and is entrusted with the task of purchase of stores and their supply to other divisions of Rajasthan Canal Project. This division is staffed by an Executive Engineer, 7 Assistant Engineers, 25 engineering subordinates, one Junior Engineer and other technical and subordinate staff.

OFFICE OF THE EXECUTIVE ENGINEER, FIELD DIVISION (DRAG LINES), BIJAINAGAR—The division is responsible for excavation of Rajasthan Canal, low level branch, and is headed by an Executive Engineer. Under him there are seven Assistant Engineers, one Junior Draftsman and other technical and ministerial staff. So far, 64 km of canal, low level branch, have been dug with the help of machines.

OFFICE OF THE EXECUTIVE ENGINEER, BIJAINAGAR DIVISION, BIJAINAGAR—It is responsible for the maintenance of the canal and construction of irrigation channels and other works connected with it. More than 80 per cent of the work of this division has been completed and water runs in the channel from April to September. The division is headed by an Executive Engineer who is assisted by three Assistant Engineers and 15 Overseers besides ministerial and other technical staff.

OFFICE OF THE EXECUTIVE ENGINEER, WORK SHOP DIVISION, SURATGARH—Maintenace of the workshop for repair of machinery and vehicles is the responsibility of this division. Executive Engineer is the head of the office who is assisted by four Assistant Engineers, 21 engineering subordinates and other usual staff.

OFFICE OF THE ASSISTANT COLONISATION COMMISSIONER, HANUMANGARH—The main functions of this department are conducting of surveys, promotion of consolidation of holdings, and allotment and sale of lands in the commanded area of Rajasthan Canal. It is also responsible for acquisition of land for construction of canals, roads and other development works in the canal area. At present the work of colonisation is concentrated in three colonisation tahsils viz., Norangdesar, Hanumangarh and Rawatsar. The work of survey and classification of soil has already been completed. The rules for permanent allotment of land have not yet been sanctioned by the Government as a result of which temporary allotment of the Government land is made from year to year. The work

of land acquisition is also in progress, and developmental activities in the area relating to rural housing and drinking water supply are also going on satisfactorily. The staff consists of one Assistant Commissioner of Colonisation, four Colonisation Tahsildars, and 8 Naib Tahsildars besides other ministerial staff.

Irrigation Department

OFFICE OF THE SUPERINTENDING ENGINEER, GHAGGAR FLOOD CONTROL CIRCLE, HANUMANGARH JUNCTION–As its name suggests, this office is mainly responsible for controlling floods in river Ghaggar. For the purpose of storing flood waters, a divergent channel of 51.2 km in length has been constructed from the crossing of Rajasthan Feeder upto the depression situated south-west of Suratgarh. The work of the circle has been divided into three divisions, each headed by an Executive Engineer, assisted by Assistant Engineers and other technical staff. The project will cost about rupees five crores.

OFFICE OF THE SUPERINTENDING ENGINEER, BIKANER IRRIGATION CIRCLE, GANGANAGAR--This office was established in the year 1946 with its headquarters at Ganganagar. It consists of three divisions namely, Gang Canal Division, Ganganagar, Hanumangarh Division and Peeli Banga Division.

The Gang Canal Division controls and maintains 108 channels, the Hanumangarh Division maintains 44 channels, while Peeli Banga Division maintains 47 channels. Each division is headed by an Executive Engineer who is assisted by usual complement of technical and ministerial staff. The Superintending Engineer, Ganganagar, exercises administrative and technical control over all these three Divisional offices.

OFFICE OF THE EXECUTIVE ENGINEER, GANG CANAL DIVISION, GANGANAGAR—The Divisional office of Gang Canal is headed by an Executive Engineer who is assisted by five Assistant Engineers and other technical and ministerial staff. Maintenance of channels and supply of water for irrigation purposes are the main functions of this office. The division has four sections viz. Correspondence, Accounts, Drawing and Revenue. A Deputy Collector looks after revenue work.

OFFICE OF THE EXECUTIVE ENGINEER (IRRIGATION), HANUMANGARH DIVISION, HANUMANGARH–Maintenance of irrigation channels in Hanumangarh Division and also the collection of revenue are the functions of this office. The head of the office is an Executive Engineer. Under him are three Assistant Engineers and a Deupty Collector for revenue work besides other staff.

OFFICE OF THE EXECUTIVE ENGINEER, PEELI BANGA DIVISION, HANUMANGARH–The Division is headed by an Executive Engineer who is assisted by three Assistant Engineers and the usual technical and ministerial staff. Maintenance of irrigation channels in the Peeli Banga Division and the collection of revenue are the functions of this office. Revenue work is looked after by a Deputy Collector.

OFFICE OF THE SECRETARY, BHAKRA MANDI DEVELOPMENT COMMITTEE, HANUMANGARH—Development of *Mandis* in the Bhakra Canal and Rajasthan Canal Project areas is the main function of this office. The Committee selects sites, approves plans, acquires land and sells plots of lands to the applicants. During the year 1965–66 as many as 770 plots were sold for Rs. 12,15,048 in the Bhakra and Rajasthan Canal Project *Mandis*.

The staff comprises one Secretary, three overseers, four clerks in addition to the auxiliary staff of class IV servants.

Public Works Department

OFFICE OF THE EXECUTIVE ENGINEER, PUBLIC WORKS DEPARTMENT, GANGANAGAR—Construction and maintenance of roads and buildings within the district is the responsibility of this department. The Executive Engineer who is the head of district office is assisted by three Sub–Divisional Officers. Assistant Engineers are incharge of the sub-divisional offices. The offices of these Sub–Divisional Officers are situated at Ganganagar, Raisinghnagar and Suratgarh and each one of them has been made responsible for execution of works within his jurisdiction. In the year 1965-66, buildings for regular research laboratory, seed testing laboratory, soil testing laboratory, seed stores, four 'E' type quarters and one 'F' type quarter were constructed in Ganganagar by the department.

OFFICE OF THE EXECUTIVE ENGINEER, PUBLIC WORKS DEPARTMENT, PROJECT DIVISION III, GANGANAGAR—The Office was first established in 1965 under Public Works Department (Buildings and Roads), Rajasthan. It is mainly concerned with the construction of strategic roads in Ganganagar district. The staff consists of an Executive Engineer, an Assistant Engineer, four engineering subordinates, two computors and one junior draughtsman besides other staff.

OFFICE OF THE EXECUTIVE ENGINEER, PUBLIC WORKS DEPARTMENT, MANDI DIVISION, HANUMANGARH—The Division was created in the year 1957 for Project Works with headquarters at Ganganagar which was shifted to Hanumangarh in 1959. It has three sub-divisional offices of which two are located at Hanumangarh, while the third one at Nohar.

Development of Bhakra and Rajasthan Canal *Mandis*, construction and maintenance of roads, bridges and buildings in the canal area are the main functions of this office. At present among its important schemes are development of *Mandis* at Hanumangarh, Suratgarh, Nohar, Bhadra, Sangaria, Sadulshahr, Peeli Banga and Rawatsar, construction of roads from Rawatsar to Nohar and from Nohar to Bhadra and a bridge over river Ghaggar. Besides the Executive Engineer, the office is staffed by three Assistant Engineers, one senior draughtsman, one junior draughtsman and 12 engineering subordinates and other ministerial personnel.

Public Health Department

OFFICE OF THE ASSISTANT ENGINEER, WATERWORKS, HANUMANGARH—It is a sub-divisional office established in the year 1954 under the Divisional Water Works Office, Bikaner. Its office was stationed at Bikaner and it confined its activities to the preparation of water supply schemes for Ganganagar district but, with the increase in workload, the headquarters were shifted to Hanumangarh in the year 1960. At present it is engaged in operating and maintaining water supply schemes at Nohar, Bhadra, Sangaria, Makkasar, Rawatsar and Hanumangarh, and preparing new ones for supplying safe and protected drinking water to the inhabitants of other urban as well as rural areas of the district.

The office is headed by an Assistant Engineer who is assisted by six engineering subordinates besides the ministerial and other staff. It is under the direct control of the Executive Engineer, Waterworks Division. Churu.

Rajasthan State Electricity Board

OFFICE OF THE EXECUTIVE ENGINEER, RAJASTHAN STATE ELECTRICITY BOARD, GANGANAGAR—An office of the Executive Engineer, Rajasthan State Electricity Board is situated at Ganganagar. It looks after the operation, maintenance as well as construction of elec ric installations for the whole of the district excepting the area of Nohar and Bhadra tahsils. The office was first established in January 1957. Previously only the Superintendent, Power House, Ganganagar used to look after the

affairs of the erstwhile Electrical and Mechanical Department in the district.

Four Assistant Engineers are on the staff of this office to assist the Executive Engineer. Two Assistant Engineers are stationed at Ganganagar to look after the operation and maintenance of Grid Sub-Station and local distribution in Ganganagar, Padampur, Lalgarh, Sadulshahr, Prithwirajpur and other adjoining *chaks* of Ganganagar; the third Assistant Engineer, who is stationed at Raisinghnagar, looks after the maintenance and distribution of electric supply for Kesrisinghpur, Karanpur, Gajsinghpur, Raisinghnagar, Bijainagar, Jaitsar etc; and the fourth Assistant Engineer, who is stationed at Hanumangarh, is responsible for looking after the work for Suratgarh, Peeli Banga, Hanumangarh town and Junction, Tibi, Sherekan, Talwara, Surewala, Sangaria and Dholipal.

Medical and Health Department

OFFICE OF THE MEDICAL OFFICER, INCHARGE NATIONAL MALARIA ERADICATION PROGRAMME UNIT, GANGANAGAR—Under this programme two sub-units are working in the district, one at Ganganagar and the other at Hanumangarh, under the charge of a Medical Officer (Malaria), stationed at Ganganagar. Though much has been achieved in this regard, it will still require some time before Malaria is finally eradicated. The staff consists of a Medical Officer, one Assistant Unit Officer, three senior malaria inspectors and three junior malaria inspectors besides other staff.

OFFICE OF THE DISTRICT MEDICAL AND HEALTH OFFICER, GANGANAGAR—Its primary function is to ensure (a) efficient working of all the hospitals, primary health centres, dispensaries family planning units, and (b) successful implementation of small-pox, malaria eradication and other public health schemes in the district. Control and prevention of the spread or any epidemic is another important function of this office. The staff consists of a District Medical & Health Officer, three clerks and three peons.

Excise and Taxation Department

OFFICE OF THE DISTRICT EXCISE OFFICER, GANGANAGAR—Prior to 1964 it was known as the office of the Assistant Commissioner, Excise & Taxation but in 1964 it was bifurcated into Excise and Commercial Taxes Departments. Since then the work relating to excise is looked after at the district level by the District Excise Officer and that of Taxation by the Commercial Taxes Officer. The District Excise Officer is assisted by an Assistant Excise Officer and 9 inspectors.

The main functions of the District Excise Office are collection of excise revenue, control, supervision and issue of licences for excisable commodities like country liquor, foreign and Indian made foreign liquor, *Bhang* (hemp), denatured spirit, spirituous preparations, and dangerous drugs etc. The Excise Officer is also required to keep a watch over opium eating habits of the people. The preventive force attached to the District Excise Officer is entrusted with the task of keeping in check smuggling of liquor and illicit distillation.

OFFICE OF THE COMMERCIAL TAXES OFFICER, GANGANAGAR—Taxes imposed under Sales Tax, Rajasthan Passenger and Goods Tax and Entertainment Tax Acts, promulgated by the Government of Rajasthan are collected through this agency in the district. Six check posts at Sadhuwali, Sangaria, Karadwali, Dabri, Jhansal and Phefana have been set-up in the district to collect tax levied on the goods imported into Rajasthan. The Commercial Taxes Officer is assisted by 8 Assistant Commercial Taxes Officers besides other staff.

Industries Department

DISTRICT INDUSTRIES OFFICE, GANGANAGAR—The District Industries Officer, Ganganagar, is responsible for the growth and development of industries and looks after industrial estates in the district. The officer renders all kinds of assistance in the setting up of new units by vetting the proposals and suggesting ways and means for their improvement. He also helps in procuring financial assistance from the State Government for setting up of new units and keeps control over its proper utilisation. Besides the District Industries Officer, the office is staffed by four clerks and two peons.

The District Industries Officer also holds overall charge of the Industrial Estate, but the immediate control vests in the manager who is assisted by a clerk and a peon. In Ganganagar Industrial Estate there are 12 'A' class sheds and 32 'C' class sheds meant for housing industrial units.

This officer is also responsible for looking after the implementation of metric system of weights and measures. He is assisted in this task by inspectors who are required to ensure that the weights and measures are properly stamped, that stamping duties are duly recovered and that the provisions of Rajasthan Shops and Commercial Establishment Act are implemented. Besides the two inspectors at Ganganagar, there is one inspector each at Nohar, Hanumangarh, Raisinghnagar and an assistant inspector at Karanpur.

Office of the Sub-Registrar, Ganganagar

Registration of documents like sale deeds etc. under the Indian Registration Act is the responsibility of this office. During the year 1965-66 as many as 1,726 documents compulsorily registerable and 299 optional documents were registered and stamp duty amounting to Rs. 3,48,041 and registration fee amounting to Rs. 70,394 was realised. The staff consists of a Sub-Registrar, two clerks and a peon.

Social Welfare Office, Ganganagar

The office is required to implement measures calculated to promote the welfare of socially backward classes and the District Social Welfare Officer is thus responsible for the successful implementation of schemes sanctioned for Scheduled Castes, Scheduled tribes and the backward classes in the district.

The District Social Welfare Officer is assisted in the discharge of his duties by a Welfare Inspector, and three Superintendents of hostels along with other ministerial and class IV staff.

Labour Office, Ganganagar

An office of the Labour Inspector is stationed at Ganganagar. The main duties and functions of this office are to watch the implementation of various labour laws and rules in force in the district from time to time. The Inspector is also required to work as a Conciliation Officer under the Industrial Disputes Act. The Labour Inspector (Welfare) is responsible for organising welfare activities among the labourers for whom a welfare centre exists. The staff consists of one Labour Inspector, one Labour Inspector (Welfare), one games supervisor, one lady supervisor, one music teacher and one adult education teacher and peons.

Employment Exchange, Ganganagar

The District Employment Exchange was opened in 1956 to provide assistance to the people of the district in securing employment. Prior to the opening of the Exchange in Ganganagar, the district was served by the District Employment Exchange, Bikaner. The office is now headed by a District Employment Officer who is assisted by a Junior Employment Officer and other usual complement of ministerial and class IV staff.

Office of the Cotton Agronomist (Agriculture Department), Ganganagar

The main function of this unit is to carry out research on different aspects of agronomical practices with different varieties of cotton under irrigated and rain fed conditions in Rajasthan. The unit has been established under the scheme, "Co-ordinated Model Agronomic Scheme on Cotton." sponsored by the Indian Council of Agricultural Research. The scheme was taken up in Ganganagar district in 1963-64. The staff of the unit consists of a Cotton Agronomist, an Assistant Agricultural Chemist, a Statistician, and six research assistants besides computors, fieldmen, beldars and other usual complement of ministerial and class IV staff.

District Statistical Office, Ganganagar

It is the district agency of the Directorate of Economics and Statistics, Government of Rajasthan. The office is entrusted with the task of collecting basic statistics relating to the district. Various sample surveys including national sample surveys and surveys relating to agricultural statistics are undertaken by the office. Preparation of the progress reports of the plan schemes, being implemented in the district, is also its responsibility. This office was established in the year 1958 with a nucleus staff consisting of a statistical inspector, but was strengthened in 1959 when a District Statistician was posted alongwith a statistical inspector, a lower division clerk and a peon. In the year 1966, the staff comprised a Statistician, a statistical assistant, three inspectors, one lower division clerk and a peon.

Office of the Public Relations Officer, Ganganagar

It is headed by a Public Relations Officer who is assisted by technical and ministerial staff. The office has been assigned the duty of disseminating information regarding the developmental and other beneficial activities of the Government under the guidance of the Directorate of Public Relations, Government of Rajasthan. This is done by organising film shows, exhibitions and distribution of publicity material. Sometimes programmes like one act plays, *Kavisammelans*, *Mushairas* etc., are also organised. The district office possesses a mobile van through which publicity is organised in the interior parts of the district.

Office of the Forest Ranger, Hanumangarh

There is a Forest Range Office in Hanumangarh town headed by a Forest Ranger to execute the schemes of the Forest Department. In the coming years it is proposed to raise irrigated plantations in the Rajasthan Canal area. The Range Officer is assisted by a team consisting of four foresters, one assistant forester and 10 forest guards.

Office of the Assistant Regional Transport Officer, Ganganagar

The staff consists of an Assistant Regional Transport Officer, a Mechanical Inspector, a Subinspector and usual ministerial and other staff. The main function of the office is to realise road tax from the motor owners and ensure the implementation of the Motor Vehicle Act and Rules in the district.

Office of the Foreman, Mines and Geology Department, Ganganagar

The Mines and Geology Department in the district is represented by a Mines Foreman assisted by three Mines Guards who are posted at Ganganagar, Hanumangarh and Suratgarh. His function is to supervise the brick kilns and prevent unauthorised excavation of minerals.

Office of the Insurance Supervisor, State Insurance Scheme, Ganganagar

The office consists of one Insurance Supervisor, 8 Insurance Assistants and a peon. Its function is to implement State Insurance Scheme under which compulsory deductions are made from the pay bills of all permanent Government servants and all temporary employees who have completed six months service.

Ganganagar Sugar Mills, Ganganagar

It is a Rajasthan Government undertaking and manufactures crystal sugar, rectified spirit, country liquor and Indian made foreign liquor. During the years 1963-64, 1964-65 and 1965-66 the production of sugar was of the order of 36,073, 32,167 and 88,021 bags.

CENTRAL GOVERNMENT DEPARTMENTS

Office of the Superintendent, Central Excise, Ganganagar

Collection of excise duty levied on various items by the Central Government and checking of smuggling are the main functions of the office. The immediate control over this office is exercised by the Assistant Collector, Central Excise, Jodhpur. At the district level it is headed by a Superintendent who is assisted by three Inspectors and four Subinspectors.

Post and Telegraph Department

TELEPHONE EXCHANGE, GANGANAGAR—After the merger of the erstwhile State of Bikaner with Rajasthan, there has been an all round progress in telephone and telegraph services in the district. At the end of 1966 ten Telephone Exchanges were functioning at Ganganagar, Raisinghnagar, Karanpur, Hanumangarh Junction, Hanumangarh Town, Nohar, Bhadra, Sadulshahr, Sangaria and Suratgarh. Trunk-call facilities are available at public call offices functioning at Anupgarh, Bijainagar, Bhadra, Gajsinghpur, Kesrisinghpur, Padampur, Peeli Banga and Hindulmkot. Local call facilities are available at Bhadra, Hanumangarh Junction, Hanumangarh Town, Nohar, Raisinghnagar, Sadulshahr, Sangaria, Ganganagar, Karanpur and Suratgarh.

POST AND TELEGRAPH SERVICE, GANGANAGAR—Postal facilities in city and towns are available within a radius of one kilometre at any point. At present there is one Head Post Office and 292 Branch Post Offices.

Field Publicity Officer, Ganganagar

It is an agency representing the Directorate of Field Publicity, Ministry of Information and Broadcasting, Government of India at the district level. Previously the district of Ganganagar was under the charge of Field Publicity Officer, Bikaner but keeping in view its strategic position, being close to the border with West Pakistan, a separate office was established at Ganganagar in 1965.

The office is mainly concerned with informing and educating people living in the district in general and on the border in particular about the plans and programmes undertaken by the Government for their uplift, and to awaken in them a spirit of enthusiastic co-operation in the implementation of developmental schemes. It is also concerned with generating emotional integration of the border people with those of the rest of the country. This is done through the aid of audio-visual media like film shows, cultural programmes, simposia, public meetings etc. Publicity material is also distributed freely to achieve this end.

Income Tax Office, Ganganagar

The office at Ganganagar came into existence in the year 1952. Prior to that the work of Ganganagar district was looked after by an Income Tax Officer stationed at Bikaner. With the gradual increase in

the work load, not only the headquarters were shifted to Ganganagar but the office staff has also been strengthened from time to time. At present it is staffed by four Income Tax Officers and 33 other personnels from subordinate and ministerial services. The main function of the department is to assess and collect income tax in accordance with the Income Tax Act. During the last five years the revenue receipts were as under :

Year	Rupees in Lakhs
1961-62	12.22
1962-63	13.69
1963-64	21.54
1964-65	25.80
1965-66	32.45

Office of Settlement Officer-cum-Assistant Custodian of Evacuee Property

Ganganagar, Bikaner and Churu districts come under the jurisdiction of this office. It has two sub-unit offices at Hanumangarh and Karanpur. The office is mainly concerned with the disposal, management and custody of the evacuee properties. Besides, it is also responsible for allotment of agricultural land (evacuee property), recovery of cost of land, recovery of evacuee properties, disbursement of compensation, sale of urban acquired properties etc. The office consists of one Managing Officer-cum-Settlement Officer, one Managing Officer grade II, one senior accountant, three inspectors and one *naib* tahsildar besides other usual complement of staff.

National Savings Scheme, Ganganagar

The work of National Savings Scheme in Ganganagar district is looked after by two District Organisors who are stationed at Ganganagar and Hanumangarh. They are mainly concerned with the publicity work of various small savings schemes in the urban and rural areas. During the year 1965-66 as many as 1,72,000 Savings Certificates were sold, 3,404 Savings Bank Accounts and 1,434 Cumulative Time Deposit Accounts were opened.

Central Warehousing Corporation, Ganganagar

It is a Government of India undertaking headed by a Superintendent, at the district level, working under the supervision of the Managing Director, Central Warehousing Corporation, New Delhi. In 1959, one godown with a capacity of 10,000 bags was set-up in Ganganagar but the same was raised to 50,000 bags in 1966. The warehouses cover Ganganagar city and villages within a radius of 48 km. to avail of the warehousing facility. The main object of the scheme is to provide facility of scientific storage of all agricultural commodities so that stocks may be saved from attacks of insects, pests, rodents and birds. The stocks stored in the warehouses are insured against theft, fire and flood and also riots and civil commotion in cases of emergency. By this method of storing, stocks worth rupees five lakhs, approximately, are being saved annually which otherwise would have been lost. The unit is staffed by a Superintendent, a technical assistant, two dusting operators, two clerks, three chowkidars and one sweeper.

CHAPTER XIV

LOCAL SELF-GOVERNMENT

Municipal institutions in the erstwhile Bikaner State had their beginnings as small committees or boards[1]. The Tahsildars or, where there were no Tahsildars, the *Naib* Tahsildars were appointed ex-officio Presidents of these committees and the members included the Hospital Assistant and a few local people of position and influence. The modern concept of local bodies performing a variety of important civic functions was, however, unknown during the first few decades of their existence. The duties of these municipal bodies were confined mainly to sanitation, and they spent bulk of their revenue on it. But gradually more functions were assigned to these committees such as the lighting of public streets, construction of wells and *diggis* for drinking water, maintenance of chowkidars for watch and ward, aid to local schools and dispensaries, construction, maintenance and repairs of roads and thoroughfares within municipal limits. The main sources of income were octroi, duty on imported articles, terminal tax, *tongas* and hackney carriages tax and duty on export of grain. Their annual expenditure invariably exceeded their income and the difference was made good by the State treasury.

A committee was constituted by Maharaja Ganga Singh in 1906-07 for effecting a thorough re-organisation of municipal administration and to improve their working[2]. But as its recommendations were too conservative and of a halting nature the municipal administration in the State remained as backward as it was before. Moreover the members of municipal committees changed frequently because they, being *Sahukars* and engaged in business outside the State, were unable to attend to their duties[3]. The municipal affairs were, thus, looked after by the Tahsildars like other Government departments, and the municipal committees existed only on paper.

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1. Municipal boards were established at Bhadra in 1883, at Suratgarh in 1888, and at Nohar in 1890. K.D. Erskine, *Rajputana Gazetteers, Vol. III-A, The Western Rajputana States Residency*, p. 370.
2. *Report on the Administration of Bikaner State*, 1906-07.
3. *ibid.*, 1915-16.

The Bikaner State Government took steps in 1917 to introduce certain reforms in the administration of the municipal committees and boards. The number of non-official members in them was increased and though elective system was not introduced, each important community was given representation. They were also given fiscal autonomy and were empowered to raise funds by taxation[1].

MUNICIPAL ACT OF 1923—The system of election was introduced in the erstwhile Bikaner State by the Municipal Act of 1923, which was extended to the municipalities of Ganganagar district only after 1930[2]. Under the provisions of the Act, each municipal board was to consist of not less than nine members both nominated and elected. A municipal board had the power to appoint its Secretary and employ such other officers as were necessary for the efficient execution of its functions. It could also remove or dismiss them. The chief controlling revenue authority of the State could, however, direct a board to dismiss any officer or servant appointed by them. An appeal could be made to the Maharaja whose decision was final. The budget, the levy of taxes and the enforcement of bye-laws of a municipal board required prior sanction of the Government.

The Act of 1923 was further amended in 1928 when the powers of the municipal boards were enhanced and they were empowered to make bye-laws regulating the mode of construction of buildings, for issue of licenses regarding offensive and dangerous trades and for examining articles liable to octroi.

The number of municipalities in the district increased after the advent of the Gang Canal and municipal boards were established at Ganganagar, and Raisinghnagar in 1930 and at Karanpur in 1931. Thus the thirties witnessed the establishment of municipalities in almost all the important towns of the area and in 1941 the district had in all nine municipal boards at the following places : Ganganagar, Karanpur, Bhadra, Hanumangarh, Nohar, Suratgarh, Sangaria, Raisinghnagar and Hindumalkot.

In 1942 municipal boards were also established at Gajsinghpur and Anupgarh. Thus at the time of merger there were eleven municipal boards in the district. Their main source of income was octroi duty

1. *Four Decades of Progress in Bikaner*, pp. 75-76.
2. *Report on the Administration of Bikaner State*, 1929-30.

on imported articles, terminal tax, tax on *Tongas* and hackney carriages, *Teh bazari* tax, duty on export of grains and interest on their surplus balances. The municipal taxes were realised directly by the local bodies, except at Nohar and Bhadra where they were collected by the customs department which was paid a collection fee of 8 per cent. The Municipalities of Ganganagar, Suratgarh, Hanumangarh, Karanpur and Raisinghnagar levied a tax on railway passengers, which was utilised for the construction of roads within their boundaries.

At present (1965-66) there are 10 Municipal boards in the district, details of which are given below :[1]

MUNICIPAL COUNCIL, GANGANAGAR—It was established in 1930 under the Bikaner Municipal Act, 1923 vide Notification No. 17 dated 9th September, 1930 issued by the erstwhile Bikaner State Government. In the beginning the total strength of the members of the Board was eleven, out of which four were officials and seven non-officials, all being nominated. In 1934-35, the strength of the members was increased from eleven to eighteen. In the same year elective system was introduced for the first time and eleven members were elected on the basis of a restricted franchise. The following were entitled to be enrolled as electors of the Municipal Board : (a) persons who owned house property worth not less than Rs. 500 situated within the municipal limits, (b) those who paid a rent of not less than Rs. 5 per month for a house or shop within the municipal area, (c) those who were in the service of the State drawing a salary of not less than Rs. 100 per month or those who drew a pension from the State of not less than Rs. 50 per month, (d) a graduate of any recognised University and (e) a licensed Vakil or *Mukhtar* of the Bikaner High Court. Females were not qualified to vote. The town was divided into five wards, each electing two members except ward No. 2 which elected three members. Out of the seven nominated members four were non-officials and three officials. In 1943-44, the strength of the elected members was increased by two, thus bringing the total to 20 (13 elected, 4 nominated non-officials and 3 nominated officials). In the same year, one nominated non-official member was elected as Chairman and another as Vice-Chairman. The system of restricted franchise was abolished in the year 1951, under the Rajasthan Town Municipalities Act, and the elections were held on the basis of adult franchise in October, 1952. The number of seats in each ward was as follows :

1. Municipal board at Hindumalkot was dissolved in 1959, and, therefore, the number of municipalities in the district was reduced to ten. The data relating to all these municipalities has been supplied by the respective municipal boards and is provisional.

Ward Number	Number of seats
1	1
2	2
3	2
4	2
5	4
6	4
Total :	15

Two seats were reserved, one for *Harijans* and another for women. Hitherto the Chairman used to be a nominated member, but from this year both the Chairman and Vice-Chairman were to be elected members. After 1952, municipal elections in the town were held in 1956, 1959 and 1963. The Act of 1951 was further amended in 1959 when the Rajasthan Municipalities Act 1959 came into force.

The town of Ganganagar has grown quite rapidly during the past three decades and from 15 November, 1962, the Board has been upgraded and declared a Municipal Council.

PRESENT ORGANISATION–The city is divided into twenty-three wards, seventeen of them being single and six double-member wards providing reserved seats for Scheduled Castes. Two lady members are co-opted. In the municipal elections of 1963 the total number of electorate was 29, 958, out of which 28,716, voters exercised their right of vote.

The administration of the municipal council is divided into the following sections :

(a) General Administration;
(b) Accounts;
(c) Revenue and Tax Collection;
  (i) *Teh Bazari*,
  (ii) Octroi,
  (iii) House Tax,
  (iv) Sale of Land;

(d) Public Works;
(e) Public Health and Sanitation;
(f) Primary and Secondary Education; and
(g) Waterworks.

The Municipal Council employs 743 persons in its various sections. The main functions of the Council at present are sanitation, public health, water supply, lighting, public utility constructions and miscellaneous. These are described below :

SANITATION—There is no underground drainage system in the town. Open surface drains, too, have been constructed only in a few localities. The drains in front of the houses have been made by the respective house owners while the main *Nalas* (exits) have been constructed by the Municipal Council. In some localities waste water is collected in the cesspools or *Kundis* constructed in front of the houses and is removed with the help of municipal tractors and trollies employed for this purpose. During the rainy season, water overflows these cesspools creating unhygienic conditions for the residents of the locality. The Council has recently (in 1967) taken up a Sewage Utilisation Scheme for the disposal of sullage water. A tremendous increase in the population of the town during the past three decades has further aggravated the problem of sanitation. In 1952-53, the present mechanised system of removal of night-soil was introduced. There are four tractors alongwith trollies which collect the sullage water and night soil and carry it to the dumping grounds for compost preparation. The municipal sweepers are supplied phenyl and powder disinfectants for use in municipal latrines, urinals and drains. Their work is supervised by Jamadars and the Sanitary Inspectors.

PUBLIC HEALTH—There is a part-time Health Officer and two full-time Food Inspectors to check adulteration in food. This staff destroys stale food articles and vegetables and also keeps a check on the quality of milk.

MATERNITY CENTRE—A maternity centre is being run by the Municipal Council under the charge of a Lady doctor, who is assisted by two nurses, one compounder, one midwife, two ward attendants, and three class IV servants. The building of the Centre has been constructed out of municipal funds. It has a provision for twenty-five indoor patients.

WATERWORKS—Prior to the setting up of the present waterworks, the drinking water supply in the town was very defective. Canal water

was brought into the *Diggis* (storage tanks) of the town by open water channels. Obviously, such storage of drinking water was unhygienic. In 1953-54, the construction of waterworks was taken up by the Municipal Board for which a loan of Rs. 11,60,000 was secured from the Government of Rajasthan. The waterworks was commissioned on the 1st December, 1958, and the total cost of its construction was Rs. 18,00,000. Water is obtained from the Gang Canal and is filtered and chlorinated before being supplied for consumption. The capacity of the plant is 15,00,000 gallons per day and the total number of connections is 4,100. The charges for water supply are Rs. 1.50 per 1,000 gallons and it is restricted to twelve hours.

LIGHTING—The municipality does not own a power house but arranges for street lighting by obtaining electricity from the Rajasthan State Electricity Board. There are 1,146 electric bulbs and Florescent tubes to light the streets. In 1965-66 the expenditure on lighting was Rs. 41,214.

CONSTRUCTION WORKS—Construction and maintenance of roads in the town is under the control of the municipality, and it has also built public utility buildings like the municipal office, the Municipal Middle School, five municipal primary schools, the Maternity Centre, one Cattle Pond, one store house, Fire Service Station and one slaughter house.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality in the selected years during the period of last 36 years.

(Rs.)

Year	Income	Expenditure
1929-30	668	462
1930-31	4,782	6,193
1935-36	10,213	12,101
1940-41	18,272	19,638
1946-47	1,49,926	1,36,953
1947-48	2,24,302	1,63,137
1950-51	3,00,269	1,63,623
1954-55	3,96,966	4,20,392
1960-61	15,96,082	12,33,391
1964-65	16,18,991	17,55,737
1965-66	15,55,213	15,58,079

The municipality derived its income from the following sources during 1965-66.

S.No.	Heads	Amount (Rs.)
1.	Taxes	5,16,045
2.	Income from licenses under byelaws	22,463
3.	Income from Municipal Council's property and powers	2,32,870
4.	Income under Other Acts	7,650
5.	Penalties and fines	3,634
6.	Waterwork's Income	3,49,130
7.	Miscellaneous	1,49,397
8.	Income received from sale of land	57,546
9.	Grants and loans	31,927
10.	Old Arrears	1,84,551
	Total	15,55,213

The municipality incurred expenditure on the following heads during 1965-66.

S.No.	Heads	Amount (Rs.)
1.	General Administration	84,381
2.	Tax collection	1,13,767
3.	Public Welfare & Public Health	3,98,896
4.	Hospitals and Dispensaries	20,922
5.	Lighting expenses	41,214
6.	Water expenses	90,177
7.	Cattle Pond	3,817
8.	Reading Room and Library	1,200
9.	Parks	12,359
10.	Entertainment	1,234
11.	Festivals etc.	348
12.	Public Safety	2,649
13.	Education	94,052
14.	Waterworks Maintenance	1,56,886
15.	Public Repairs expenses	28,840
16.	Miscellaneous	17,470
17.	Works & Development Works	4,17,343
18.	New Wealth Tax	1,097
19.	General Loan	56,750
20.	Other non-recurring expenses	14,677
	Total	15,58,079

Both income and expenditure have risen substantially since 1929-30. The income had risen from bare Rs. 668 in 1929-30 to Rs. 15,55,213 in 1965-66 and expenditure from a paltry sum of Rs. 462 in 1929-30 to Rs. 15,58,079 in 1965-66.

MUNICIPAL BOARD, KARANPUR—The Municipal Board at Karanpur was set up in May, 1931 under the Bikaner Municipal Act, 1923. In the beginning it was a small municipality with very limited resources and it could not undertake any development work due to the paucity of funds. The Tahsildar used to be the ex-officio president of the Board. In 1946, a non-official was elected president for the first time. The system of restricted franchise was abolished and universal adult franchise was introduced only after the formation of Rajasthan. In 1951, the total number of members was ten (eight elected and two nominated by the Government). In the municipal elections of 1955, the town was divided into eight wards for electing the members.

PRESENT ORGANISATION—The present strength of the Municipal Board is twelve elected members and two co-opted members. Five committees have been formed by the members of the Board for the efficient supervision of the various departments of the municipality. These committees are :—(1) the Finance Committee, (2) the Light and Water Committee, (3) the Public Works Department Committee, (4) the *Tahbazari* Committee, and (5) the Executive Committee. Each committee comprises of three members, two are taken from amongst the members of the Board and the third is nominated by the Board.

The Municipal Board employs 128 persons, distributed amongst six sections, namely, General Administration (9), Tax Collections (33), Public Health and Sanitation (75) and Miscellaneous (11).

POWERS AND DUTIES—Before the formation of Rajasthan the municipal board looked after sanitation, lighting, maintenance of roads and streets. A Girl's Middle School was also run by it and its building was constructed out of the municipal fund. The school, however, was handed over to the education department in 1955. Functioning of the various departments of the municipality is described below :

SANITATION—There are two tractors with trollies which collect the refuse. Nearly two tons of garbage, thus collected, are converted into compost. In all 64 sweepers are employed to clean the streets and they

are provided with phenyl and powder disinfectants for use in municipal drains. A Sanitary Inspector supervises their work.

LIGHTING—The municipality does not own a power house but arranges for street lighting by obtaining electricity from the Rajasthan State Electricity Board. The Municipality has provided 45 florescent tubes and 150 electric lamps for the street lighting.

WATER SUPPLY—Although the waterworks in the town is being run by the State Public Health Engineering Department, the Municipality has provided 26 public stand posts and spends Rs. 18,000 per annum for the water supply.

CONSTRUCTION WORKS—Construction and maintenance of roads in the town is under the control of the municipality. After the formation of Rajasthan 1.38 kilometre black top roads and 7.89 kilometre unsurfaced motorable roads have been built by the board. Other public utility buildings constructed by the municipality are 86 *Tehbazari* shops, 6 octroi out-posts, 2 public *Diggis*, 2 public wells, one municipal board park, one Children park, one Recreation Centre-cum-Library room, 0.8 kilometre sewage line and 13.34 km of pucca drains.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality in the selected years during the last one and a half decade.

(Rs)

Year	Income	Expenditure
1950-51	64,656	55,554
1955-56	96,739	78,788
1960-61	1,91,473	1,83,516
1965-66	2,24,948	2.52,387

MUNICIPAL BOARD, HANUMANGARH—This is one of the oldest municipalities in the district and was established in 1909[1]. In the beginning the Tahsildar worked as the president of the board. The municipality had its first elected president in 1947 when it had a strength of seven elected and five nominated members. In 1950, the total number of members was reduced from twelve to ten (eight elected and two nominated). Just as in the case of the other municipalities of the erstwhile Bikaner State, the elections were held on a restricted franchise. With the Rajasthan Town Municipalities Act coming into force in 1951 the old Bikaner Municipalities Act, 1923 was repealed and adult franchise was introduced. It remained in force till it was replaced by the Rajasthan Municipalities Act, 1959.

1. *Report on the Administration of Bikaner State*, 1909-10.

PRESENT ORGANISATION—The town is divided into thirteen wards (nine in Hanumangarh town and four in Hanumangarh Junction Colony), eleven of them being single and two double-member wards providing reserved seats for Scheduled Castes. Two members are co-opted by the elected members. The members elect the Chairman and Vice-Chairman of the Board.

The Municipal Board employs 157 persons in the various sections, namely, General Administration (10), Tax Collection (40), Public Health and Sanitation (83), Education (6), Miscellaneous (18).

POWERS AND DUTIES—The Municipal Board performs the functions assigned to the municipalities under the Rajasthan Municipalities Act of 1959 and makes arrangements for sanitation, lighting, construction of public utility works and water supply.

The following is a brief description of the manner in which these functions are being performed by the Board :

PUBLIC HEALTH AND SANITATION—The Municipality is running two *Aushdhalayas* (dispensaries), one at Hanumangarh Junction and the other at Hanumangarh town involving an annual expenditure of Rs. 3,000. Two tractors with trollies, and two tankers collect the refuse and waste water. Seventy-one sweepers are employed to clean the streets who are supplied with wheelbarrows and sullage carts for removing the refuse from the streets. Phenyl and powder disinfectants are regularly used for cleaning the public drains.

LIGHTING—The municipality is attending to lighting arrangements in the town. In 1965-66, Rs. 5,282 were spent on street lighting. Electricity is supplied by the Rajasthan State Elecricity Board.

CONSTRUCTION WORKS—Construction and maintenance of roads in the town is under the control of the Municipality. Other public utility works constructed by the Municipality are the Municipal Office building, eight octroi posts, eight public parks, and the Cattle Pond. The Municipal Board has also constructed the building of the Maternity Centre run by the State Government at a cost of Rs. 50,000 and the building of the Nehru Memorial Children's School at a cost of Rs. 1,18,000. The Municipality is running a Gandhi Memorial Nagar Palika Primary School since 1965.

WATERWORKS—The Municipal Board has constructed a small waterworks. The water supply is restricted to two hours only i.e. from 7 A.M. to 8 A.M. and from 4 P.M. to 5 P.M. Total number of connections are 360 (300 at the town and 60 at the Junction). The consumers are charged at a flat rate of Rs. 6 per tap.

FINANCIAL POSITION—The following statement shows the income and expenditure of the Municipality in the selected years during the past four decades :

Rs.

Year	Income	Expenditure
1927–28	1,608.00	1,645.00
1948–49	37,122.00	39,356.00
1950–51	68,225.00	43,107.00
1955–56	92,028.79	91,282.66
1961–62	2,90,251.57	2,55,210.52
1965–66	5,68,189.22	5,24,653.42

MUNICIPAL BOARD, RAISINGHNAGAR—This municipal board was established on 19th May, 1930. In the beginning it had nine members and it was presided over by the Tahsildar. Election to the office of the Chairman was made for the first time in 1942. At the time of merger also the board had nine members (six elected and three nominated).

PRESENT ORGANISATION—The town is divided into seven wards, four of them being single and three double member wards providing reserved seats for Scheduled Castes. Two members are co-opted by elected members. The members of the Board elect the Chairman and Vice-Chairman.

The Municipal Board employs 131 persons distributed among following sections, namely, General Administration (11), Tax Collection (38), Public Health and Sanitation (59), Waterworks (3), Public Works (2), Municipal School Library (13) and Miscellaneous (5).

POWERS AND DUTIES—Till the enforcement of Rajasthan Town Municipalities Act of 1951, the main functions of the Municipality were sanitation and lighting. After that more powers and duties have devolved on the Municipality and at present it performs the following functions:

SANITATION—Fifty sweepers are employed to clean the streets daily. Two tractors and two trollies daily remove one ton refuse from the town. Phenyl and powder disinfectants are used to disinfect the municipal drains.

LIGHTING—The streets are lighted with the electricity supplied by the Rajasthan State Electricity Board. The number of the street lights is 230 involving an expenditure of Rs. 9,713 per annum.

CONSTRUCTION WORKS—Construction and maintenance of roads in the towns is under the control of the Municipality. Other works constructed by the Municipal Board are, the *Aushdhalayas*, the library, the school and pucka drains.

FINANCIAL POSITION—The following statement shows the income and expenditure of the Municipality for the last five years:

Rs.

Year	Income	Expenditure
1960–61	2,51,908	2,00,388
1962–63	2,32,108	3,11,427
1963–64	4,30,585	4,63,973
1964–65	3.30,029	3,51,062
1965–66	3,42,068	3,38,866

MUNICIPAL BOARD, SANGARIA—It was established in 1917. In the beginning, all the members of the Board were nominated by the erstwhile Bikaner State Government and the *Nazim* and the Tahsildar acted as Chairman and Vice-Chairman respectively. In 1943, the first non-official Vice-Chairman was nominated. First elections were held in 1953, when eight members were elected on the basis of adult franchise. Two members (one lady and one Scheduled Caste) were nominated.

PRESENT ORGANISATION—At present (1965–66), the total number of members is 12 (10 elected and 2 co-opted). The town is divided into eight wards, six electing a single member each and two electing two members each providing reserved seats for Scheduled Castes. Two women members are co-opted by the elected members. The Chairman and Vice-Chairman are elected by the members.

The office establishment has four sections, namely, General Establishment, Public Health and Sanitation, Tax Collection and Miscellaneous.

The total strength of the staff is 77, including the Executive Officer.

Main duties of the municipality are sanitation and public health, lighting, water supply and public utility constructions.

SANITATION—There is a municipal tractor for collecting town refuse Thirty sweepers are employed to keep the streets clean and twelve wheelbarrows have been provided to them for this purpose. They are supplied with phenyl and powder disinfectants for use in the municipal drains and urinals.

LIGHTING—The municipality provides street lights from the electricity supplied by the Rajasthan State Electricity Board. The number of the street lights is 120.

CONSTRUCTION WORKS—Construction and maintenance of roads in the town is under the control of the Municipality. The board has constructed 3.2 km (two miles) long coaltar road at a cost of Rs. 80,000. The length of the pucka drains coustructed by the Municipality is 2,500 feet. Other public utility works constructed are the Municipal office, three primary schools, a Rest House, five municipal parks, two reading rooms and five octroi posts.

EDUCATION—The municipality has opened two primary schools in which the number of students in 1965–66 was 500. Besides this, the Board gives grant-in-aid of Rs. 15,000 per annum to the Gramothan Vidyapeeth, Sangaria.

FINANCIAL POSITION—The following statement shows the income and expenditure of the Board for the last four years :

(Rupees)

Year	Income	Expenditure
1962-63	1,81,937	1,69,624
1963-64	1,99,351	1,82,965
1964-65	2,24,336	1,87,572
1965-66	2,08.053	2,01,608

MUNICIPAL BOARD, GAJSINGHPUR—The Municipal Board was established in 1942 under the provisions of the Bikaner State Municipalities Act of 1923. At the time of merger of Bikaner State it had eight members. It had its first elected president in 1949. Elections on the basis of adult franchise were held for the first time in 1953.

PRESENT ORGANISATION—At present (1965-66) the total number of members is twelve (10 elected, 2 co-opted). The town is divided into

seven wards, four electing one member each and three electing two members each in order to provide reserved seats for Scheduled Castes. Two members are co-opted by the elected members. The Chairman and Vice-Chairman are elected by the members.

POWERS AND DUTIES—Till the enforcement of Rajasthan Town Municipalities Act of 1951, the main functions of the municipality were sanitation and lighting. At present it performs the following functions :

SANITATION—Twenty sweepers are employed to clean the streets daily. One tractor and one trolly are employed to remove refuse from the town.

PUBLIC HEALTH–Municipality is running an *Ayurvedic Aushdhalaya* which has one *Vaidya*, one nurse and one compounder.

LIGHTING—The Municipality arranges for street lighting from the electricity supplied by the Rajasthan State Electricity Board. The number of street lights is 84 involving an expenditure of Rs. 6,000 per annum.

CONSTRUCTION WORK—It has constructed Municipal Bhawan at a cost of Rs. 1,00,000 in which there is a big town hall. Other public utility constructions made by the municipality are : two school buildings, one public park and one library.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality in the selected years during the past one decade :

(Rs.)

Year	Income	Expenditure
1955-56	57,087	44,474
1960-61	1,29,651	1,10,113
1965-66	2,00,399	1,91,[illegible]

MUNICIPAL BOARD, NOHAR—The Municipal Board was established during the last decade of the 19th century. In the beginning all of its members were nominated and the Tahsildar worked as its ex-officio president. Elective system was introduced with a restricted franchise in 1940. The strength of the Board at the time of formation of Rajasthan was twelve members (10 elected, 2 nominated). In 1952, elections of the

members of the Municipal Board were held for the first time on the basis of adult franchise.

PRESENT ORGANISATION—The present strength of the municipality is fourteen (12 elected and 2 nominated). The Chairman and Vice-Chairman are elected by the members. In 1965-66, the Board had 84 employees on its staff.

POWERS AND DUTIES—The Municipality performs the following functions :

SANITATION—Fifty-two sweepers are employed to clean the streets daily. They have deen provided with 20 wheelbarrows. One tractor and two trollies remove about six tons of refuse from the town.

LIGHTING—The Municipality arranges for street lighting for which electricity is supplied by the Rajasthan State Electricity Board. The number of street lights is 125 elecric bulbs, 30 florescent tubes and 75 gas lamps, all involving an expenditure of Rs. 20,000 per annum.

CONSTRUCTION WORK—About 2,134 metres (7,000 feet) long drainage has been constructed by the Board during the last ten years. The construction and the maintenance of roads in the town is under the control of the municipality.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality for the last five years :

(Rupees)

Year	Income	Expenditure
1961-62	1,64,554	1,48,699
1962-63	1,46,281	1,59,151
1963-64	1,78,344	2,74,105
1964-65	1,82,253	1,61,933
1965-66	2,00,872	2,18,493

MUNICIPAL BOARD, SURATGARH—It came into existence much earlier than most of the municipalities in the district[1]. The Tahsildar

1. Erskine has given 1888 as the date of its establishment. Erskine, K. D., *Rajputana Gazetteers, Vol. III-A, The Western Rajputana States Residency*, p. 370.

used to be the ex-officio President of the Board till the formation of Rajasthan and all its members were nominated by the erstwhile Bikaner State Government. The municipality had its first elected Board in 1952, when all its members were elected on the basis of adult franchise, who in their turn elected the Chairman and Vice-Chairman.

PRESENT ORGANISATION—At present (1965-66), the total number of members is 12 (10 elected and 2 co-opted). The town is divided into 9 wards, eight electing one member each and one electing two members to provide reserved seats for Scheduled Castes. Two women members are co-opted by the elected members. The Chairman and Vice-Chairman are elected by the members.

The office establishment has five sections, namely, General Establishment, Public Health and Sanitation, tax collection and miscellaneous.

The total strength of the staff is 79, including the Executive Officer.

POWERS AND DUTIES—Till the enforcement of Rajasthan Town Municipalities Act of 1951, the main functions of the municipality were sanitation and lighting. At present it performs the following functions :

SANITATION—Forty-three sweepers are employed to clean the streets daily. One tractor and one trolly collect the refuse from the town.

PUBLIC HEALTH—The municipality is running an *Ayurvedic Aushdhalaya* which has one *Vaidya* and one compounder on its staff.

LIGHTING—The Board arranges for street lighting from the electricity supplied by the Rajasthan State Electricity Board and Rupees 12,455 are spent per annum on street lighting.

MISCELLANEOUS—To provide drinking water facilities in the town, the municipality has installed electric motors on the municipal wells. Construction and maintenance of roads within the municipal area is also the responsibility of the Board.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality in the selected years during the last decade.

(Rupees)

Year	Income	Expenditure
1955-56	63,977	66,647
1960-61	1,47,625	1,46,674
1965-66	3,31,852	2,72,278

MUNICIPAL BOARD, BHADRA—It is one of the oldest Municipal Boards in the district[1]. In the beginning it had four members, all nominated by the erstwhile Bikaner State Government and the Tahsildar used to be the ex-officio President. Elective system was introduced in 1944 and the Board had its first elected President in 1947. Adult franchise was introduced under the Rajasthan Town Municipalities Act of 1951.

PRESENT ORGANISATION—At present the number of members is twelve (ten elected and two co-opted). The town is divided into nine wards, eight electing one member each and one electing two members. The Chairman and Vice-Chairman are elected by the members.

The Municipal Board employs 93 persons who are divided as follows:

General Administration (8), Tax Collection (17), Sanitation (55) Public Works (4) and Miscellaneous (9).

POWERS AND DUTIES—Before the formation of Rajasthan the municipality looked after the sanitation, lighting and maintenance and repairs of roads. Its main functions, at present, are described below:

SANITATION—There are two municipal tractors with two trollies and one bullock-cart, which make a number of rounds daily to collect the refuse. The town is provided with open surface drains. Phenyl and other power disinfectants are used to disinfect these drains by the sanitary staff of the municipality. In all, 55 sweepers are employed to clean the streets and a Sanitary Inspector is incharge of the entire sanitary work.

STREET LIGHTING—The municipality has provided 90 kerosene and gas lamps and 200 electric lamps and florescent tubes for the street lighting and spends Rs. 25,000 per annum on it.

1. According to Erskine it came into existence, in 1883. *Erskine*, K.D., *Rajputana Gazetteers, Vol. III-A, The Western Rajputana States Residency*, p. 370.

WATERWORKS—Waterworks was constructed in the town in 1958 at a cost of Rs. 2,00,000. Water is obtained from a well but there is no provision for its filtration and chlorination. Total number of connections is 285. The water supply is restricted to six hours i.e., three hours in the morning and three hours in the evening.

PUBLIC WORKS—Construction and maintenance of roads in the town is under the control of the municipality.

FINANCIAL POSITION—The following statement shows the income and expenditure of the Municipality for the preceding five years :

Rs.

Year	Income	Expenditure
1961–62	1,32,318	1,33,802
1962–63	1,51,043	1,51,509
1963–64	2,09,458	2,12,783
1964–65	2,73,713	2,93,915
1965–66	2,95,165	2,91,980

MUNICIPAL BOARD, ANUPGARH—The municipality was established in November, 1942 under the provisions of Bikaner State Municipalities Act of 1923. Elections on the basis of adult franchise were held for the first time in 1956, when eight members of the Board were elected and two were co-opted.

PRESENT ORGANISATION—At present (1965–66) the total number of members is twelve (ten elected and two co-opted). The Chairman and Vice-Chairman are elected by the members.

The Municipal Board employs 20 persons who are distributed in the following four sections:

General Administration (4), Tax Collection (5), Sanitation, (9), and Miscellaneous (2).

POWERS AND DUTIES—Prior to the formation of Rajasthan, the main functions of the Board were sanitation, water supply and lighting. The following functions are now performed by the Board :

SANITATION—Nine sweepers have been employed by the Board to clean the streets. The refuse is removed by a bullock-cart. The secretary of the Board also looks after the sanitation work and he is assisted by two Jamadars.

LIGHTING—The municipality has provided gas lamps for street lighting involving an expenditure of Rs. 7,000 per annum.

CONSTRUCTION WORK—The Board has constructed buildings for a school, a library and a reading room. The construction and maintenance of roads is also the responsibility of the municipality.

FINANCIAL POSITION—The following statement shows the income and expenditure of the municipality in the selected years during the past one decade :

(Rs.)

Year	Income	Expenditure
1956–57	16,502.00	12,384.00
1960–61	35,742.98	32,201.59
1965–66	66,504.89	65,247.63

VILLAGE PANCHAYATS

Village Panchayats were established in the district by the Village Panchayat Act, 1928, passed by the erstwhile Bikaner State. These village panchayats were to assist the administration in rendering civil and criminal justice and in the development of local administration in rural areas. Under the provisions of the Act a Panchayat consisted of not less than 5 and not more than 9 members, the exact number to be determined by the Government. The Panchas were to be elected and a person not residing within the area of a Panchayat was not eligible for election. Ordinarily the *Choudhari* of the village used to be the Sarpanch, but where there were more than one *Choudhari*, the Minister-in-Charge of the local bodies selected one of them as the Sarpanch.

These Panchayats were given both civil and criminal jurisdiction. In civil cases, they could take congnisance of suits for sums not exceeding Rs. 50. The decrees so passed by the Panchayat were executed through the court of the Tahsildar of the respective area. Criminal cases cognisable by a Panchayat involved offences like committing (a) a riot, (b) a public nuisance, (c) obscene acts and songs, (d) assault or use of criminal force, (e) theft of property not exceeding ten rupees in value, (f) receiving stolen property, (g) criminal intimidation and (h) outraging the modesty of a woman.

The maximum penalty that could be inflicted by a Panchayat was not to exceed Rs. 10. 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 of opinions, in case of disagreement among the members of a panchayat. No court fee was charged.

Administrative duties and powers of Panchayats included (1) management of schools, (2) public health and supply of drinking water, (3) protection of tanks, (4) works of public utility, (5) planting and preservation of trees etc. A village fund was placed at the disposal of the Panchayat for the development of the area within its jurisdiction. The fund consisted of: (1) sums contributed by the Government or local bodies or private persons, (2) receipts on account of the cess levied by a Panchayat. The Panchayat could, with the previous sanction of the State Government, levy a cess not exceeding two paise per rupee of the land revenue demand. The Revenue Minister of the Bikaner State Government exercised general powers of inspection, supervision and control over the performance of the administrative functions by the Panchayats.

After passing of the Act, Panchayats were established in some selected villages and in 1941 there were 16 Panchayats in the Ganganagar division of the erstwhile State of Bikaner and this number increased after the formation of Rajasthan. In 1951 the district had 203 village Panchayats with the following tahsilwise break up:[1]

Name of Tahsil	No. of village Panchayats
Ganganagar	32
Karanpur	14
Suratgarh	30
Padampur	13
Raisinghnagar	27
Anupgarh	8
Hanumangarh	33
Nohar	10
Bhadra	36
Total	203

1. *Census 1951, Rajasthan and Ajmer, District Census Handbook*, Part I, pp. XII to XIV.

Under the provisions of the Rajasthan Panchayat Act, 1953 Panchayats at the village level and Tahsil Panchayats at the tahsil level were established. Every village or a group of villages, having a population between 500 to 1000, constituted a Panchayat. The Act provided for the division of the Panchayat Circle into wards and a Panch to be elected from each ward. The minimum number of Panchas required for the formation of a Panchayat was five and the maximum fifteen, besides a Sarpanch. The Panchas were elected on the basis of adult franchise and their term was three years. Provisions were made for the representation of Scheduled Castes but it was not obligatory; a Panch belonging to a Scheduled Caste could be nominated by the Government if no candidate from the Scheduled Castes was elected. The electors of the Panchayat circle (area) elected a Sarpanch (chairman) from amongst themselves. The Panchas elected one of them as Upsarpanch (Vice-chairman). Ability to read and write was an essential qualification for both.

At the tahsil level, Tahsil Panchayats were established which consisted of a Sarpanch and six to eight Panchas, who were elected by the Sarpanchas and Panchas of all the Panchayats of the tahsil. The Tahsil Panchayat exercised general supervision over the affairs of the Panchayats in the tahsil and disposed of appeals against the decrees, sentences, and orders passed and directions given by the Panchayats. A list of Tahsil Panchayats and the village Panchayats that were functioning in the district before the introduction of Democratic Decentralisation in 1959 is given in Appendix I.

The powers and duties of village Panchayats considerably increased after the promulgation of the Rajasthan Panchayat Act. 1953. In the administration of Civil and Criminal justice, the Panchayats were given wider jurisdiction. Civil suits for sums not exceeding Rs. 100 were made triable by a Panchayat and in criminial cases the Panchayat could impos a fine up to Rs. 50 and if the fine remained unpaid for three months, the accused was to undergo one day's simple imprisonment for every two rupees. The Panchayats performed various other municipal functions relating to sanitation and public health, rural water supply, public utility works and voluntary labour services. After the advent of the community development programme, these Panchayats were utilised as the agency for implementing the development work at the village level.

DISTRICT BOARD—The Ganganagar District Board was constituted on 15th September, 1935. In the beginning it had 56 members, 42 elected and 14 nominated. The Chairman of the Board was appointed by

the State Government and the Vice-Chairman was elected by the members from among themselves but subject to the approval of the State Government.

District Boards were established by the erstwhile State of Bikaner for associating the rural population with the management of public activities within their respective areas. These Boards were authorised to extend educational and medical facilities by opening schools, Ayurvedic and Allopathic dispensaries and veterinary hospitals. To provide facilities for the marketing of cattle and for the improvement of cattle breeds, cattle fairs were organised by the Boards at various places in the district every year. These functions were performed under the supervision and control of the Revenue Commissioners.

The main sources of income of the Board were : (1) Local Rate, assessed at the rate of one anna per rupee of the total Land Revenue, (2) Profession Tax, levied on persons carrying on business in the rural areas of the district, and (3) receipts from Cattle Fairs. The budget of a Board was sanctioned by the Government.

In 1941, a separate District Board was established at Suratgarh comprising Suratgarh and Anupgarh tahsils of the district. Hence, the strength of the Ganganagar District Board was reduced from 56 to 48 (36 elected and 12 nominated). After the formation of Rajasthan, the old Ganganagar and Suratgarh District Boards were dissolved and a new Board under the name of the Ganganagar District Board was formed which started functioning from January 1950.

With the coming into force of the Rajasthan Panchayat Samiti and Zila Parishad Act 1959, which introduced the scheme of the Democratic Decentralisation in the State, the Ganganagar District Board was abolished. All the assets vesting in the Board and all the liabilities subsisting against it, devolved on the State Government on the 2nd October, 1959, when the aforesaid Act came into force. The functions of the Board have, thereafter, been assigned to the Panchayat Samitis and various Government departments.

DEMOCRATIC DECENTRALISATION—A three-tier system of local self-government was introduced by the Rajasthan Panchayat Samitis and Zila Parishad Act 1959, on October 2, 1959. Under the new scheme the Panchayat set-up was completely re-organised. Every village or a group of villages in the district having a population between 1,500 to 2,000 forms a Panchayat and during the year 1965-66, there were 350 Panchayats in

the district. The number of Panchas varies in each Panchayat from eight to fifteen according to its population. The elections are held every third year on the basis of adult franchise and by secret ballot. The area of the Panchayat is divided into wards equal in number to the number of Panchas fixed for the Panchayat. Any person recorded as a voter in the electoral rolls of the Rajasthan Legislative Assembly residing in the Panchayat area can contest election from any ward, but can vote only in the ward where his name occurs in the voters' list.

VILLAGE PANCHAYAT FUNCTIONARIES

Sarpanch

Sarpanch is the Chairman and Chief Executive authority of the Panchayat, and the head of the team of the Panchas. He is elected by the entire electorate of the Panchayat. He convenes meetings of the Panchayat and presides over them, and is also responsible for the safe custody of cash. He is competent to receive money and make payment as authorised by the Panchayat and prepares budget for the approval of the Panchayat and the Panchayat Samiti. He, alongwith other Panchas, arranges and supervises the execution of work in the Panchayat area.

Secretary

Every Panchayat appoints a Secretary to attend to the ministerial work and to perform the duties assigned to him by the Sarpanch. The other important functionaries are:

(i) *Gram Sevak* (VILLAGE LEVEL WORKER)—His primary function is extension work in agriculture and animal husbandry. He spends 80 per cent of his time on agriculture and allied activities. In some of the Panchayats, the *Gramsevak* acts as the ex-officio secretary.

(ii) VILLAGE TEACHER—He occupies an important position in the life of the village community being the person incharge of education in the village.

(iii) PATWARI—He is an official of the Revenue Department at the village level whose services and help are often required for carrying on developmental activities in the village.

(iv) FOREST GUARD—He helps the Panchayat in sowing and planting of forest species in village forests for the purposes of nursery and seeks the help of Panchayat in the protection of Government forests.

Functions of the Panchayats

The major functions of the Panchayats are developmental, municipal and administrative. They prepare plans for the increased agriculture production of the individual families and organise the community for promotion of its wealth, safety, education, comfort and social and cultural well-being. Agriculture, which was a secondary function of the Panchayats till 1953, has assumed great significance after the introduction of the Panchayati Raj.

A meeting of *Gram Sabha* (village council) which consists of the entire electorate of the Panchayat area, is called at least twice a year to make the people aware of the Panchayat plans and post them with the progress made.

Resources and Budgets

The Panchayats can levy taxes such as vehicle tax, tax on buildings and on commercial crops, and octroi. Other sources of income are : fees and fines imposed on the owners of impounded cattle, fines for disregarding administrative orders of the Panchayats, grazing charges, irrigation fees for water given from the Panchayat tanks, proceeds from sale of *Abadi* lands etc. The Panchayats also receive grants from the Government.

The Panchayats are free to plan their expenditure within their resources. Budgets are also framed by the Panchayats which have, however, to be approved by the Panchayat Samitis concerned.

Panchayat Samitis

There are nine Panchayat Samitis in the district, namely, Raisinghnagar, Ganganagar, Karanpur, Hanumangarh, Sadulshahr, Suratgarh, Nohar, Bhadra and Padampur.

A Panchayat Samiti consists of three kinds of members:[1]

A. EX-OFFICIO MEMBERS—(i) All the Sarpanchas of the Panchayats in the Samiti and (ii) Krishi Nipun declared as such by the Zila Parishad for the block.

B. CO-OPTED MEMBERS—(i) Two women, if no women is a member of Panchayat Samiti under (a) above or one woman, if only one woman is such member; (ii) two persons belonging to Scheduled Castes if no such person is a member of Panchayat Samiti under (a) above or one member if one such person is already a member; (iii) two persons belonging to Scheduled Tribes, if no such person is a member of Panchayat Samiti under (a) above, or one member if one such person is already a member provided the population of such Tribes in the block exceeds 5% of the total population of that block; (iv) two persons having experience in administration, public life or rural development; (v) one representative from amongst the members of the managing committee of the co-operative societies of the block; and (vi) one respresentative of the *Gramdan* villages.

1. By a recent amendment Members of the Legislative Assembly have been categorised as ex-officio members and representatives of co-operative societies as Associate members.

C. ASSOCIATE MEMBERS—Members of the State legislature whose constituency falls in a particular Panchayat Samiti are its associate members. These members have a right to attend and take part in the deliberations of the Panchayat Samiti but do not have a right to vote or to get elected to any of its offices.

The term of office of a Panchayat Samiti is three years.

Functions

A Panchayat Samiti is responsible for the development work in the Panchayat Samiti area with special emphasis on the activities related to agriculture, primary education, local communication, sanitation, health and medical relief and local amenities. The Panchayat Samitis are expected to perform all of these functions according to the needs of the community and its financial resources keeping in view the priorities assigned to the various programmes by the State.

Standing Committees

The scheme of Panchayati Raj envisages that the Panchayat Samiti shall not work through individuals but collectively. With this end in view at least three standing committees have been made obligatory by the statute, namely, committee for production programme, committee for social service and social amenities programmes, and committee for finance, taxes and administration. If considered necessary, the Panchayat Samitis can also have committees for other purposes.

Resources

The funds of the Panchayat Samitis consist of : (1) Income accruing from taxes such as cess or rent for the use or occupation of agricultural land, taxes on trades, professions, and industries, primary education cess, tax on fairs, income arising from leases granted for the collection of bones, and entertainment tax; (2) Grants for liabilities transferred by the various departments; (3) Annual *Adhoc* grants; (4) Regular grant of 25 paise per head of the populatian of the area in lieu of share of land revenue; (5) Matching grants for the schemes transferred; and (6) Loans advanced by the State. The Samitis are also empowered to raise

loans. Every Panchayat Samiti frames its budget and formulates its annual plans of development and sends them to the District Development Officer who presents it to the Zila Parishad. The Zila Parishad may pass the budget or send it back with modifications. The Panchayat Samitis have to reconsider the suggestions made by the Zila Parishad but it is not obligatory to accept them.

The major expenditure of the Panchayat Samitis, besides that incurred on developmental activities, consists of repayment of loans contracted by it, salaries and allowances of its employees, allowances to members and such other necessary items.

Functionaries

PRADHAN—The Pradhan, who is elected by the members from amongst themselves, is the head of the Panchayat Samiti and exercises administrative control over the Vikas Adhikari and other members of the staff for implementing the decisions and resolutions of the Panchayat Samiti and its Standing Committees. He is expected to promote initiative and enthusiasm in the Panchayats, and provide guidance in the formulation of their plans and production pragrammes. He is also expected to endeavour for the growth of the co-operative movement and other voluntary service organisations in the area. He convenes and presides over the meetings of the Samiti.

VIKAS ADHIKARI—The chief executive officer is known as Vikas Adhikari, who is also the head of the office of the Panchayat Samiti and exercises administrative control over the entire staff. The Vikas Adhikari co-ordinates the activities of the various extension workers viz., Extension Officers, *Gram Sevaks*, teachers etc. and also plays the role of their team leader. The Vikas Adhikari is responsible to carry out the directions of the Panchayat Samiti and at the same time, to ensure that the Government policy is implemented and rules and regulations are complied with.

Other important functionaries who assist in the work of the Panchayat Samitis are Agriculture, Animal Husbandry, Co-operative and Education Extension Officers, Overseers, Forest Rangers etc. who implement the policies of the Panchayat Samitis in their respective fields and also offer technical advice. A brief account of these Panchayat Samitis is as follows:

PANCHAYAT SAMITI, RAISINGHNAGAR—It consists of 58 Gram Panchayats—the name, population and the number of villages in each Panchayat have been given in the Appendix II.

In area and population this Panchayat Samiti is the biggest in the district. There are 65 members in the Panchayat Samiti: 58 Sarpanchas,

two co-opted members, two Associate members (officials) and two Members of Legislative Assembly. The Samiti has five standing committees viz. Administration, Taxation and Finance Committee, Agriculture and Irrigation Committee, Animal Husbandry and Cottage Industries Committee, Education Committee and Social Welfare Committee. Each committee consists of seven members and two co-opted members. These committees are responsible for planning and formulation of policies in their own allocated sphere of activity.

The staff of the Samiti consists of one Vikas Adhikari, two Extension Officers (Agriculture), one Extension Officer (Animal Husbandry), two Extension Officers (Co-operatives), one Inspector, one Assistant Inspector, two Education Extension Officers, one Progress Assistant[1], one Overseer, one Farm Manager, fifty-eight *Gram Sevaks*, six stockmen, two hundred and thirty-seven teachers, one vaccinator, three upper division clerks, five lower division clerks and two drivers.

Some of the functions of the Samiti are described below :

AGRICULTURE—The Samiti distributes improved seeds, fertilisers and insecticides to the agriculturists. In 1965-66, 3,429 metric tonnes (3,375 ton) fertilisers, 854 metric tonnes (841 ton) improved variety of seeds and 5,145 new type of agricultural implements were distributed. Two thousand four hundred fifty metres pucka channels were constructed during the Third Five Year Plan.

ANIMAL HUSBANDRY—Thirty thousand animals were vaccinated and 577 bulls were castrated by the Animal Husbandry staff of the Samiti since its inception. Twenty-four bulls were distributed for improving the breed of the local cattle during the same period.

PUBLIC HEALTH AND FAMILY PLANNING—One Family Planning camp of Mobile Surgical Unit was organised by the Samiti in 1965--66, at a cost of Rs. 15,000 and 2,500 persons were benefited by it. The total number of operations conducted in the camp was 408.

CONSTRUCTION WORK—The Panchayat Samiti had undertaken during the year 1964-65 and 1965-66, 167 local development works out of which 104 have been completed.

EDUCATION—There are 164 Primary Schools under the management of the Samiti and the total number of students in 1965-66 was 13,652 (7,808 boys, and 5,844 girls).

1. This post has been abolished since July 1967.

CO-OPERATIVE SOCIETIES—Nine new co-operative societies were opened by the Samiti during the period between 1961-62 to 1965-66 with a total membership of 2,438.

The following statement shows the income and expenditure of the Samiti for the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	7,14,213	8,14,485
Loans	35,900	6,19,285
Own	15,85,693	5,25,659
Total	23,35,806	19,59,429

PANCHAYAT SAMITI, GANGANAGR[1]—It consists of 44 Gram Panchayats. The headquarters of the Samiti are situated at Ganganagar. The name, population and the number of villages in each Panchayat has been given in the Appendix III.

At present (1965-66), there are 52 members in the Samiti : 44 elected members (Sarpanchas, including Up-Pradhan), two co-opted members, two non official Associated members, one official Associated member, two members of the State Legislative Assembly, one Pradhan and one Up-Pradhan.

Following five standing committees of the Samiti are responsible for planning and formulation of policies in their own sphere of activity.

1. Administrative, Finance and Taxation Committee;
2. Production Committee;
3. Education and Social Education Committee,
4. Rural Water Supply Committee;
5. Social Welfare Committee.

The staff of the Samiti consists of one Vikas Adhikari, one Animal Husbandry Extension Officer, two Agriculture Extension Officers, one Co-operative Extension Officer, one Assistant Co-operative Extension Officer, one Progress Assistant, one Superintendent, three upper division

1. This Panchayat Samiti was earlier known as Mirzewala Panchayat Samiti, but now it has been renamed as its headquarters have been shifted to Ganganagar.

clerks, one accountant, four lower division clerks, twenty *Gram Sevaks* and five Class IV servants.

Some of the functions of the Panchayat Samiti and its important achievements have been described below:

AGRICULTURE—In 1965-66, the Samiti distributed 3,276 metric tonnes (3,225 ton) fertilisers, 496 metric tonnes (488 ton) improved seeds and 1,708 new type of agricultural implements. The Samiti gives 50 per cent subsidy for the construction of pucka channels.

ANIMAL HUSBANDRY—In a period of five years ending in 1965-66 the Samiti has purchased and distributed 37 breeding animals and 2,136 poultry for upgrading the local cattle and the poultry. In 1965-66, 601 bulls were castrated.

CO-OPERATIVE SOCIETIES—One hundred and two Co-operative societies are working at present (August 1966) in this Panchayat Samiti with a membership of 5,572.

EDUCATION—The Samiti has started intensive enrolment drive in education and has stood first in the district in enrolment drive. The Samiti also provides one third of the total cost of construction of a Primary School building. The number of Primary Schools under the management of the Samiti is 91 out of which eight are girls schools. The Samiti has also built residential quarters for the lady teachers. There is a small library in each school containing books for children.

The Panchayat Samiti office building has been constructed at a cost of Rs. 45,000 at Ganganagar within the premises of Zila Parishad Bhawan.

The following statement shows the income and expenditure of the Samiti during the year 1965-66.

(Rupees)

Head	Income	Expenditure
Grant-in-aid	3,69,611	3,87,930
Loans	4,49,500	7,48,288
Own	3,28,012	3,20,179
Total	11,47,123	14,56,397

PANCHAYAT SAMITI, NOHAR—Forty-one Gram Panchayats constitute the Panchayat Samiti. The name, population and the number of villages in each Panchayat has been given in the Appendix IV.

The total strength of 47 members of the Panchayat Samiti is composed of 41 elected members, two women co-opted members, two members from Co-operative Societies and two members of Legislative Assembly. The Samiti has five standing committees, namely, Administration and Finance Committee, Animal Husbandry and Agriculture production Committee, Rural Water Supply Committee, Education Committee and Social Education Committee. These committees are responsible for planning and formulation of policies in their own allocated sphere of activity.

Staff of the Samiti consists of one Vikas Adhikari, two Agricultural Extension Officers, two Education Extension Officers, one Co-operative Extension Officer, one Animal Husbandry Extension Officer, one Overseer, one Progress Assistant, ten Village Level Workers, one Vaccinator, 152 teachers, two upper division clerks, six lower division clerks, one accounts clerk, one driver and five class IV servants.

The functions of the Panchayat Samiti are described below :

AGRICULTURE—Although most of the area under its jurisdiction is desert, the Samiti has tried to improve the existing means of irrigation by undertaking the repair of ponds and wells. The farmers were given 29.4 metric ton (29 ton) fertilisers, 429.7 metric tonnes (423 ton) improved variety of seeds and 791 agricultural implements by the Samiti in 1965-66. It has also brought 15,234 hectares (37,644 acres) of land under its soil conservation scheme during the period between 1961-62 to 1965-66. In the same period 5,816 fruit plants were distributed for the development of fruit orchards.

ANIMAL HUSBANDRY—Dairy farms and poultry farms have been opened by the Samiti. Steps have been taken to improve the breed of cattle and the Samiti has distributed 1,104 animals and 653 poultry (between 1961-62 to 1965-66) for this purpose.

EDUCATION—There are 93 Primary Schools under the management of the Samiti. In 1965-66, the total number of students in these schools was 4,384 and that of teachers 150. The Samiti has opened two libraries and reading rooms and provided funds for Adult Education.

CO-OPERATIVE SOCIETIES—In 1965-66 the number of co-operative societies in the Samiti was 39 with a total membership of 3,377. With the

advent of the Rajasthan Canal the development works of the Samiti are expected to be accelerated.

The following statement shows the income and expenditure of the Panchayat Samiti during the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	4,08,411	2,46,272
Loans	2,65,000	8,310
Own	1,34,815	78,029
Total :	8,08,226	3,32,611

PANCHAYAT SAMITI, PADAMPUR—It consists of 33 Gram Panchayats. The name, population and the number of villages in each Panchayat has been given in the Appendix V.

At present (1965-66), there are 41 members in the Samiti. 33 elected members, two co-opted members, two non-official Associate members, two official Associate members, one Member of Legislative Assembly and one Pradhan. The number of standing committees is five, namely, Administration, Taxation and Finance Committee, Agriculture Production Committee, Social Welfare Committee, Education Committee and Animal Husbandry Committee. These Committees act as eyes and ears of the Panchayat Samiti and are responsible for the formulation of its policies.

Some of the important activities of the Samiti are :

AGRICULTURE—To improve irrigation facilities 6,400 metres pucka channels were constructed by the Samiti by the end of the year 1965-66. It has also distributed 2,297 improved agricultural implements and 398 fruit plants for the development of fruit orchards in 1965-66. During the same period the farmers were also provided with 1,551.5 metric tonnes (1,527 tons) fertilisers and 334 metric tonnes (329 tons) of improved variety of seeds. Within a period of five years ending in 1965-66, 549 hectares (1,358 acres) of land was brought under the soil conservation scheme initiated by the Panchayat Samiti.

EDUCATION—The number of Primary Schools under the management of the Panchayat Samiti is 75. The Samiti has also opend 24 Adult

Education Centres where 578 adults were educated during the period between 1961-62 to 1965-66.

ANIMAL HUSBANDRY—The Samiti had purchased and distributed 142 breeding animals and 3,006 poultry for improving the breed within a period of five years preceding 1965-66.

CO-OPERATIVE SOCIETIES—Six Co-operative Societies were opened during the period between 1961-62 to 1965-66 with a total membership of 1,077.

The following statement shows the income and expenditure of the Samiti during the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	3,20,353	4,37,477
Loans	1,61,500	1,38,014
Own	2,56,965	2,48,689
Total	7,38,818	8,24,180

PANCHAYAT SAMITI, KARANPUR—It consists of 36 Gram Panchayats. The name, population and the number of villages in each Panchayat has been given in Appendix VI. There are 45 members in the Panchayat Samiti-36 Sarpanchas, one Associate member (non-officials), six co-opted members and two members of Legislative Assembly. This strength of 45 members is distributed among the following four standing committees :

1. Production Programme Committee;
2. Administration, Finance and Taxation Committee;
3. Social Services Committee;
4. Education and Social Education Committee.

These committees are responsible for planning and formulation of policies in their own allocated sphere of activity. Some of the achievements of the Samiti are :

AGRICULTURE—The Samiti distributed 186 metric tonnes (183 tons) improved seeds, 643 metric tonnes (633 ton) fertilisers and 680 improved agricultural implements to the agriculturists in 1965-66.

ANIMAL HUSBANDRY—Twenty-nine breeding animals and 561 poultry were distributed by the Samiti for improving the local cattle during the period between 1961-62 to 1965-66.

CO-OPERATIVE SOCIETIES—From 1961-62 to 1965-66 seven co-operative societies were opened with a membership of 1,765.

EDUCATION—The number of primary schools functioning under the management of the Panchayat Samiti is 94. The Samiti has opened 151 Adult Education Centres where 784 adults received education during the period between 1961-62 to 1965-66. Five Youth Clubs were also started in the same period.

The following statement shows the income and expenditure of the Samiti for the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	3,89,225	5,65,230
Loans	1,76,500	1,28,900
Own	4,09,980	3,55,012
Total	9,75,705	10,49,142

PANCHAYAT SAMITI, HANUMANGARH—It consists of 42 Gram Panchayats. The name, population and number of villages in each Panchayat has been given in the Apperdix VII. There are in all, 50 members in the Panchayat Samiti, of these 42 are Sarpanchas, one Pradhan, four co-opted members (two ladies and two belonging to Scheduled Castes) one official Associate member, and two Members of Legislative Assembly. The Samiti has five standing committees, namely, Administration, Taxation and Finance Committee, Education Committee, Agricultural Production Committee, Committee for Co-opratives and Public Health Committee. They are responsible for the planning and formulation of its policies.

Some of the functions of the Samiti are described below :

AGRICULTURE—In 1965-66, the Samiti distributed 551.7 metric tonnes (543 ton) improved seeds, 1314.7 metric tonnes (1,294 tons) fertilisers and 2,227 new type of ploughs and seed drills to the farmers. During the same period 542 hectares (1,339 acres) of land was brought under its soil conservation programme.

ANIMAL HUSBANDRY—Twenty-one breeding animals and 428 poultry were distributed by the Samiti for improving the local cattle during 1965-66.

CONSTRUCTION WORK—Sixty-nine hand pumps were installed and seven water storage tanks were constructed by the Samiti to provide drinking water facilities in the villages. Thirteen school buildings have been constructed out of the Samiti funds.

EDUCATION—There are 91 primary schools under the management of the Samiti and the total number of students on roll in 1966-67 was 5,584 (4,635 boys and 949 girls). The number of teachers was 144. Twenty-five adult education centres have also been opened by the Samiti.

CO-OPERATIVE SOCIETIES—During the Third Five Year Plan, 33 co-operative societies were opened within the jurisdiction of the Samiti. In 1965-66, the total number of members of these societies was 2,905.

The following statement shows the income and expenditure of the Samiti for the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	5,23,831	3,73,905
Loans	21,500	3,03,447
Own	3,63,420	5,31,694
Total	9,08,751	12,09,046

PANCHAYAT SAMITI, SURATGARH—It consists of 24 Gram Panchayats. The total number of villages in the Panchayat Samiti is 141. The name, population and the number of villages, in each Gram Panchayat, have been given in Appendix VIII.

The total strength of 33 members of the Panchayat Samiti consists of 24 Sarpanchas, four co-opted members, two Associate members (non officials), one Associate member (official), and one Member of Legislative Assembly and one other. The Samiti has the following five standing committees which are responsible for the planning and formulation of policies.

1. Production Committee;
2. Administration, Finance and Taxation Committee;
3. Health Committee;

4. Education and Social Education Committee;
5. Committee for poor.

Some of the functions of the Panchayat Samiti are described below :

AGRICULTURE—In 1965-66, the Samiti distributed 711 tons of improved seeds and 2,012 tons of fertilisers. In the same period Samiti has also distributed 345 new types of ploughs, seed drills, and other agricultural implements to the agriculturists. Since its inception, 21,367 acres of land was brought under its soil conservation programme.

ANIMAL HUSBANDRY—From 1961-62 to 1965-66, 109 breeding animals and 277 poultry were distributed by the Samiti for upgrading the local cattle. The Samiti has also opened 35 cattle farms.

PUBLIC HEALTH AND SANITATION—Four new wells were constructed and 20 hand pumps were installed for providing drinking water facilities. The Samiti has also constructed 148 public latrines in the rural areas.

EDUCATION—There are 76 primary schools under the management of the Panchayat Samiti. The Samiti has also opened 137 Social Education Centres for providing adult education. Other important institutions being run by the Samiti are : 7 Community Centres, 57 *Yuwak Mandals*, 46 *Bal Baris*, 11 *Mahila Mandals* and seven reading rooms.

CO-OPERATIVE SOCIETIES—During the Third Five Year Plan the Samiti has organised 37 co-operative societies and in 1965-66 the total number of members of these societies was 2,228.

The development work in the Samiti has suffered due to the Ghaggar floods. It is an irony of fate that in the certain areas of the Samiti the crops are destroyed by the floods while in others they are damaged because of the paucity of water. Recently efforts have been made to control the floods and to utilise the Ghaggar water for irrigation purposes.

The following statement shows the income and expenditure of the Samiti for the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	4,25,237	2,61,074
Income	71,900	2,02,083
Own	74,007	12,004
Total	5,71,144	4,75,161

PANCHAYAT SAMITI, SADULSHAHR—It consists of 33 Gram Panchayats. The name, population and the number of villages in each Panchayat has been given in the Appendix IX.

At present (1965-66), there are 44 members in the Samiti, among whom are 35 Sarpanchas, two co-opted members, two non-official Associate members, two official Associate members and three Members of Legislative Assembly. There are five standing committees, namely, Administration Committee, Production Committee, Social Services and Rural Water Supply Committee, Finance and Taxation Committee and Education Committee. These committees plan and formulate policies for their respective spheres of activity.

Some of the achievments of the Panchayat Samiti are described below :

AGRICULTURE—In 1965-66, the Samiti distributed 290.5 metric tonnes (286 tons) of improved seeds, 1,001.7 metric tonnes (985 tons) of fertilisers and 2,465 better type of agricultural implements. From 1961-62 to 1965-66, 2,780 hectares (6,870 acres) of land was brought under its soil conservation scheme.

ANIMAL HUSBANDRY—Between 1961-62 to 1965-66 the Samiti distributed 140 improved breeding animals, and 1,441 improved poultry.

CO-OPERATIVE SOCIETIES—Six new co-operative societies were opened with a total membership of 2,618, during a period of five years preceding 1965-66.

EDUCATION—The number of primary schools under the management of the Panchayat Samiti is 69. The Samiti has opened 5 libraries, 14 women societies, 42 Youth Clubs and 184 Adult Education Centres. The number of adults who received education at these centres is 560.

CONSTRUCTION WORK—Since its inception, fifty-five kilometres of kutcha roads and seventy wells, to provide drinking water facilities, have been constructed by the Samiti.

The following statement shows income and expenditure of the Samiti for the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	2,71,634	3,38,503
Loans	2,28,600	3,18,849
Own	4,89,999	4,11,606
Total	9,90,233	10,68,958

PANCHAYAT SAMITI, BHADRA—It consists of 37 Gram Panchayats. The name, population and the number of villages in each Panchayat has been given in the Appendix X.

At present (1965-66), there are 46 members in the Samiti consisting of 37 elected, four co-opted, two non-official Associate members, one official Associate member, one Member of Legislative Assembly and one *Pradhan*. Four standing committees have been formed by the Panchayat Samiti, namely, Administration, Taxation and Finance Committee, Agriculture Production and Animal Husbandry Committee, Education and Social Education Committee and Social Services Committee, for the efficient conduct of its activities.

Some of its achievements are described below :

AGRICULTURE—The Samiti has tried to improve the level of irrigation wells and ponds etc. Improved seeds, fertilisers, insecticides and improved agricultural implements are distributed to the farmers. During a period of five years ending on 1965-66, 1,942 hectares (4,798 acres) of land was brought under its soil conservation scheme and 1,022 fruit plants were distributed for the development of fruit orchards.

EDUCATION—The Samiti has opened 150 Adult Education Centres where 1,549 adults received education from 1961-62 to 1965-66. The number of primary schools under the management of the Panchayat Samiti is 73. There were 5,500 students studying in these schools in 1965-66.

ANIMAL HUSBANDRY—The Samiti has purchased and distributed 126 breeding animals for improving the local cattle during 1965-66.

CO-OPERATIVE SOCIETIES—Nineteen new co-operative societies were opened by the Samiti during the period between 1961-62 to 1965-66 with a total membership of 1,846.

The following statement shows the income and expenditure of the Samiti during the year 1965-66 :

(Rupees)

Head	Income	Expenditure
Grant-in-aid	2,88,224	4,31,890
Loans	40,000	2,14,335
Own	1,30,584	1,40,253
Total	4,58,808	7,86,478

NYAYA PANCHAYATS—With the enforcement of the Rajasthan Panchayat Act, 1953, Nyaya Panchayats were constituted in the district, in accordance with Chapter IV of the Act. Judicial powers have now been taken away from the Gram Panchayats so that they may concentrate on development work. For each group of five to seven Panchayats separate Nyaya Panchayats have been constituted to try certain minor criminal offences (specifically mentioned in a schedule attached to the Act) and to impose fines not exceeding Rs. 50. In case of non-payment of fine, the matter is brought to the notice of Sub-Divisional Magistrate who makes recovery as if it was imposed by him. In civil cases, these Panchayats have jurisdiction to try certain suits not exceeding Rs. 250 in value. In such cases, if there is difficulty in executing a decree, a report is sent to the *Munsif* or Civil Judge having jurisdiction, who executies them as if it were passed by his own court.

The number of the Nyaya Panchayats in the district has been given in Appendix XI.

ZILA PARISHAD—The Ganganagar Zila Parishad was formed on 2nd October, 1959 under the scheme of Democratic Decentralisation in Rajasthan when at the same time the Ganganagar District Board ceased to exist and some of its functions were transferred to the Zila Parishad. The membership of the Zila Parishad is constituted as under :

(a) Ex-officio Members

(1) All *Pradhans* of the Panchayat Samitis of the district.

(2) Member(s) of the Parliament.

(3) Member(s) of the Legislative Assembly.

(4) President of the Central Co-operative Bank in the district.

(5) Collector of the District (non-voting member).

(b) By co-option

(1) Two women, if no woman is already a member of the Zila Parishad, or one, if there is one such member under (a) above.

(2) One member from the Scheduled Castes if no such person is member under (a) above.

(3) One member from the Scheduled Tribes, if there is none under (a) above provided that their population exceeds 5% of the total population.

(4) Two persons of experience in administration, public life or rural development.

These members are co-opted by ex-officio members of the Zila Parishad by secret ballot. The *Pramukh* who acts as Chairman is elected from amongst the members by secret ballot and the Secretary of the *Parishad* is an officer belonging to the State Service. The term of the Zila Parished, like the Panchayat Samiti, is three years.

Zila Parishad has not been assigned any executive functions. Its main role is to supervise and co-ordinate the work of the various Panchayat Samitis in the district, to maintain liaison between the State Government on the one hand, and Panchayat Samitis on the other, and to prepare district plan on the basis of the plans of the Panchayat Samitis.

FINANCIAL RESOURCES—The Zila Parishad has its own fund which consists of the money received from the State for meeting its establishment charges and allowances to its members. The *Parishad* may receive donations or contributions from public in any form. It, however, has not been assigned any independent field for taxation. The Zila Parishad submits its budget to the State Government for approval.

APPENDIX I

Tahsil Panchayatwise list of the Village Panchayats before the introduction of the Democratic Decentralisation in 1959

TAHSIL PANCHAYAT, GANGANAGAR

1. Kalian
2. Koni
3. Khyaliwala
4. Ganeshgarh
5. Chak Bhagsar
6. Chunnawadh
7. Jodhewala
8. Dungarsinghpura
9. Tatarsar
10. Dullapur Kheri
11. Doulatpura
12. Netawali
13. Pakki
14. Panniwala
15. Banwala
16. Matili Rathan
17. Madera
18. Mahiyanwali
19. Mirjewali
20. Mohanpura
21. Lalgarh
22. Ladhuwala
23. Sahabsinghwala
24. Sadhuwali
25. Shivpur
26. 4 C
27. 21 G G
28. 8 HH
29. 4 M L
30. 10 Z
31. 18 Z

TAHSIL PANCHAYAT, SURATGARH

1. Ayalki
2. Aeta
3. Gudli
4. Goloowala Bas Siyag
5. Goyansar
6. Ghamandiya
7. Dhaba
8. Didaspura
9. Padampur
10. Paditawali
11. Prempura
12. Baropal
13. Birmana
14. Bhagwansar
15. Maler
16. Mandi Peeli Banga
17. Rajpura *alias* Peepren
18. Likhmisar
19. Sardarpura Beeka
20. Soorawali
21. Somasar

APPENDIX I—(contd.)

TAHSIL PANCHAYAT ANUPGARH

1. Anandgarh
2. Kalyankot
3. Kalakui
4. Kishnasar
5. Kodiband
6. Gomawali
7. Chhattargarh
8. Jaitsar
9. Jeewandesar
10. Ramsinghpur
11. Bijainagar
12. Sarajsar
13. 42 G B
14. 49 G B
15. 78 G B
16. 90 G B

TAHSIL PANCHAYAT RAISINGHNAGAR

1. Karadwali
2. Kikarwali
3. Khatan
4. Khyaliwala
5. Jhotanwala
6. Thandi
7. Thakri
8. Tatarsar
9. Nanuwala
10. Bagicha
11. Bhagsar Dabla
12. Baranwali
13. Muklawa
14. Lalgarh Vishnoiyan
15. Likhmewala
16. Luhara
17. Satjanda
18. Sameja
19. Sangrana
20. 3 MK
21. 31 ML
22. 79 N P
23. 11 PS
24. 16 P S
25. 29 P S
26. 40 P S
27. 10 T K
28. 71 R B
29. 83 R B

TAHSIL PANCHAYAT KARANPUR

1. Arayan
2. Kaminpura
3. Kesarisinghpur
4. Kharla
5. Gulabewala
6. Gurusar
7. Dalpatsinghpur
8. Dhharegewali
9. Dhanur
10. Manjhiwala

APPENDIX I—(concld.)

11. Mukan
12. Mod
13. Motasar Khooni
14. Mohela
15. Radewala
16. Rupnagar
17. Sardarsinghpura
18. 7 S I and II
19. 11 O
20. 14 F F II
21. 33 H (Jodkiya)

TAHSIL PANCHAYAT PADAMPUR

1. Ghamurwali
2. Padampur
3. Fakeerwali
4. Binjbayala
5. Manjhuwas (52 LNP)
6. Ratanpura Barani
7. Rajpura
8. Rirmalsar
9. 8 B B
10. 20 B B A
11. 23 B B
12. 25 B B
13. 39 B B
14. 4 N N A
15. 3 E E
16. 83 L N P
17. 41, 48 R B
18. 5, 6, R B
19. 5 K K
20. 7 D D
21. 4 J J

Source : Collectorate, Ganganagar.

APPENDIX II

Village Panchayats in Panchayat Samiti, Raisinghnagar during 1965–66

S. No.	Name of panchayats	No. of villages	Population
1	2	3	4
1.	12 G B	5	2,061
2.	16 G B	6	2,487
3.	Thandewala	6	1,406
4.	Luhara	5	1,506
5.	Kanwarpura	9	1,786
6.	Khyaliwala	8	3,133
7.	71 R B	9	2,898
8.	Sangrana	10	2,882
9.	Phozuwala	4	1,427
10.	Lakha Hakam	7	2,247
11.	Khanta	9	2,402
12.	30 P S	4	1,391
13.	Sanwatsar	6	1,562
14.	Bhompura	8	1,889
15.	68 N P	10	2,074
16.	75 N P	17	2,347
17.	Bagicha	11	1,966
18.	Thandi	8	1,769
19.	Shyamgarh	11	2,667
20.	Namuwala	9	2,069
21.	Satjanda	8	1,840
22.	Bhoogiya	4	1,894
23.	19 G B	6	1,955
24.	10 T K	6	2,530
25.	Ganguwala	5	1,962
26.	Kikarwali	6	2,265
27.	66 R B	8	3,309

APPENDIX II–(concld.)

1	2	3	4
28.	22 P S	6	2,592
29.	Bhadwanwala	3	1,038
30.	Likhmewal	3	1,038
31.	Thakri	6	1,641
32.	2 G B A	7	1,764
33.	28 G B	6	1,952
34.	Vijainagar	1	3,622
35.	24 G B	6	1,627
36.	Jaitsar	1	2,147
37.	Bilochia	7	2,133
38.	42 G B	6	2,118
39.	Ramsinghpura	9	2,530
40.	41 G B	11	2,785
41.	50 G B	8	2,530
42.	61 G B	6	1,222
43.	65 G B	4	1,222
44.	68 G B	14	2,077
45.	90 G B	9	2,111
46.	72 G B	7	1,838
47.	74 G B	10	1,313
48.	Gomawali	6	1,324
49.	Nahrawali	13	1,119
50.	Rojhari	14	1,676
51.	Dabla	8	3,142
52.	Karadwali	10	2,245
53.	Udrasar	9	2,437
54.	Jhotawali	8	2,235
55.	Muklawa	6	2,707
56.	5 T K	7	1,555
57.	3 M K	10	2,415
58.	16 P S	8	2,473

Source : Vikas Adhikari, Panchayat Samiti, Raisinghnagar.

APPENDIX III

Village Panchayats in Panchayat Samiti, Ganganagar during 1965–66

S. No.	Name of Panchayats	No. of villages	Population
1	2	3	5
1.	Kotha	8	1,967
2.	Pakki	6	2,132
3.	Hindumalkot	7	2,573
4.	Orki	6	1,305
5.	Dulapur Kheri	6	1,545
6.	Maderan	5	901
7.	Shivpur	7	2,181
8.	Khat Labana	5	2,053
9.	Kaliyan	5	1,871
10.	Koni	6	2,392
11.	Rohitanwali	5	1,271
12.	Daulatpura	6	1,849
13.	Sangatpura	7	1,155
14.	Bakhtana	6	1,376
15.	Mirzawala	13	3,239
16.	Matili Rathan	10	3.107
17.	Sahabsinghwala	5	1,144
18.	18 Z	5	1,428
19.	3 C	5	1,287
20.	9 Z	5	1,257
21.	Mohanpura	7	2,033
22.	3 Y	7	1,258
23.	Sadhuwali	4	1,799
24.	3 Z	6	1,288
25.	Hardwarigarh (2 ML)	5	1,474
26.	Kundlawala(6 LNP)	6	1,027
27.	Khyaliwala	5	1,407

APPENDIX III—(concld.)

1	2	3	4
28.	Hirnawali	7	1,498
29.	Netawala	5	2,011
30.	4 ML	6	1,513
31.	Sahuwala	7	1,521
32.	10 Z	10	2,100
33.	3 H	6	2,218
34.	27 G G	6	1,638
35.	13 g	6	1,759
36.	Jodhewala	6	1,629
37.	Chunnawadh	5	2,396
38.	5. L L	5	1,112
39.	Tatarsar	5	1,576
40.	4 G	6	1,326
41.	Govindpura	7	1,474
42.	Burjwala (21 G G)	5	1,263
43.	2 L L	5	1,829
44.	Mahiyanwali	6	2,532

Source : Office of the Vikas Adhikari, Panchayat Samiti, Ganganagar.

APPENDIX IV

Village Panchayats in Panchayat Samiti, Nohar during 1965-66.

S. No.	Name of Panchayat	No. of villages	Population
1	2	3	4
1.	Ramgarh	1	2,774
2.	Barwali	2	2,106
3.	Parlika	1	2,723
4.	Dhil-ki-Jatan	4	3,465
5.	Phefana	1	4,605
6.	Ratanpura	3	2,818
7.	Jasana	1	3,420
8.	Gudiya	4	3,157
9.	Dhandhela	3	2,106
10.	Daidas	3	2,629
11.	Bhookarka	3	2,825
12.	Dalpatpura	5	2,786
13.	Lalanawas Dikhnada	4	2,582
14.	Meghana	4	2,230
15.	Gorkhana	4	1,832
16.	Lalaniya	5	2,357
17.	Chak Sardarpura	6	1,968
18.	Sondi	4	2,924
19.	Lalanawas Utrada	3	2,202
20.	Aradki	6	3,095
21.	Bad Virana	2	3,348
22.	Rawatsar	1	6,409
23.	Chaiya	5	2,998
24.	Khora	5	2,578
25.	Hardaswali	3	1,564
26.	Palloo	10	2,408
27.	Bisrasar	5	2,270

APPENDIX IV—(concld.)

1	2	3	4
28.	Naiyasar	9	1,905
29.	Moter	7	2,326
30	Pandusar	7	1,831
31.	Jabrasar	4	1,873
32.	Tidiyasar	4	1,867
33.	Neemla	4	2,636
34.	Dhansiya	2	1,875
35.	Mandarpura	3	1,964
36.	Seerangsar	3	2,252
37.	Nolkhi	6	3,068
38.	Jhedasar	5	1,977
39.	Brahamsar	3	2,935
40.	Birkali	3	3,185
41.	Gandheli	3	2,826

Source : Office of the Vikas Adhikari, Panchayat Samiti, Nohar.

APPENDIX V

Village Panchayats in Panchayat Samiti, Padampur during 1965-66

S. No.	Name of Panchayats	No. of villages	Population
1.	5 B B A	7	2,420
2.	4 J J	7	2,531
3.	35 B B	8	2,688
4.	Jalloki	4	2,414
5.	Rajpura	9	2,366
6.	39 R B	7	2,247
7.	Tamkot	6	2,807
8.	3 R B A	9	2,463
9.	20 B B A	7	2,158
10.	23 B B	5	2,485
11.	Padampur	1	4,927
12.	5 E E A	5	2,151
13.	Dhelwan	6	2,214
14.	7 D D	6	2,622
15.	8 N N A	8	2,136
16.	Channana	6	2,880
17.	Ghudhuwala	7	2,187
18.	16 B B	6	2,237
19.	Rattewala	5	2,790
20.	4 B B	7	2,267
21.	5 K K	7	2,840
22.	Sawantsar	6	3,267
23.	Pharsewala Barani	11	3,201
24.	Fakeerwali	6	2,164
25.	Jeewandesar	12	3,654
26.	Ghamurwali	6	2,814
27.	Manjhuwas Barani	11	2,538
28.	Narsinghpura	5	2,351
29.	Binjh Baila	6	3,436
30.	Jorkian	12	2,748
31.	Ridmalsar Barani	6	2,469
32.	1 P S	8	2,487
33.	Ratanpura	20	4,508

Source : Office of the Vikas Adhikari, Panchayat Samiti, Padampur.

APPENDIX VI

Village Panchayats in Panchayat Samiti, Karanpur during 1965–66

S. No.	Name of Panchayats	No. of villages	Population
1	2	3	4
1.	Manaksar	7	2,425
2.	Kharlan	4	2,273
3.	Dhharegewali	6	2,241
4.	50 G G	7	2,392
5.	Srinagar	5	2,329
6.	Arayan	6	2,807
7.	Kaminpura	6	1,372
8.	Gulabewala	5	2,453
9.	2 W	7	2,496
10.	Dalpatsinghpur	8	2,536
11.	Dhanoor	4	2,133
12.	Kikarwali	6	1,217
13.	Malkana Khurd	10	3,166
14.	Malkana Kala	7	1,800
15.	2 X	9	4,047
16.	Faridasar	5	2,501
17.	Kesrisinghpur	3	2,927
18.	8 V	9	1,813
19.	Phusewala	5	1,764
20.	Mohlan	5	2,008
21.	2 F C	7	2,716
22.	Majhiwala	9	2,088
23.	Motasar Khooni	5	1,640
24.	2 FFA	8	2,574
25.	56 F	5	2,224
26.	Rup Nagar	9	2,285

APPENDIX VI—(concld.)

1	2	3	4
27.	14 FFA	6	2,557
28.	9 FF	6	1,715
29.	Radewala	6	2,723
30.	42 H	8	1,901
31.	Naggi	6	2,343
32.	33 H	10	2,710
33.	46 F	7	2,408
34.	Teje wala	8	1,752
35.	15 O	7	1,954
36.	3 O	7	2,300

Source : Office of the Vikas Adhikari, Panchayat Samiti, Karanpur.

APPENDIX VII

Village Panchayats in Panchayat Samiti, Hanumangarh during 1965-66

S. No.	Name of Panchayat	No. of villages	Population
1	2	3	4
1.	Dhaban	1	3,920
2.	Deengarh	3	1,695
3.	Bolanwali	1	2,040
4.	Nathwana	1	1,387
5.	Ratanpura	1	1,834
6.	Nagrana	1	2,440
7.	Leelanwali	3	3,440
8.	Manaksar	4	2,961
9.	Nawan	2	1,252
10.	Roranwali	1	2,304
11.	Jorkiyan	1	2,036
12.	Makkasar	5	2,876
13.	Jwalasinghwala	2	1,534
14.	Sarsia	5	1,760
15.	Satipura	10	1,770
16.	Salewali	3	2,197
17.	Gudiya	2	2,998
18.	Khara Khera	2	3,891
19.	Gilwala	3	4,215
20.	Talwara	1	3,993
21.	Silwala Khurd	3	3,543
22.	Meharwala	2	3,595
23.	Dabli Kalan	4	3,914
24.	Chaoowali	4	2,435
25.	Khinaniya	2	1,572
26.	Norangdesar	4	3,075
27.	Surewali	1	5,565

APPENDIX VII—(concld.)

1	2	3	4
28.	Basheer	3	2,697
29.	Peer Kamariya	2	2,732
30.	Sherekan	6	4,126
31.	Teebi	6	3,280
32.	Mainawali	3	2,022
33.	Kishanpura Dakhnada	2	2,521
34.	Chohlawali	2	1,928
35.	Fatehgarh	2	2,537
36.	Sahjipura	7	3,553
37.	Dablibas Pemarohi	6	1,915
38.	Dablibas Kutab	8	1,584
39.	Dablibas Molviwala	1	4,555
40.	Jhamber Barani	11	2,141
41.	Kohla	10	1,960
42.	Munda	1	2,729

Source : Office of the Vikas Adhikari, Panchayat Samiti, Hanumangarh.

APPENDIX VIII

Village Panchayats in Panchayat Samiti, Suratgarh during 1965–66

S. No.	Name of Panchayat	No. of villages	Population
1.	Goloowala Bas Siyag	2	2,660
2.	Goloowala Bas Nawada	2	2,976
3.	Soorawali	6	3,295
4.	Dhaba	5	3,380
5.	Lakhasar	3	2,680
6.	Likhmisar	4	2,929
7.	Dhirdesar	4	7,087
8.	Ayalki	3	2,461
9.	Amarpura Rathan	10	6,782
10.	Rampura	13	7,131
11.	Ghamandiya	5	2,980
12.	Sardargarh	8	5,614
13.	Padampur	13	2,452
14.	Kishanpura	6	2,044
15.	Paditawali	2	2,959
16.	Baropal	2	3,935
17.	Dadhor	4	2,746
18.	Somasar	4	1,757
19.	Thukrana	5	1,757
20.	Deidaspur	7	2,286
21.	Mokalsar	5	1,954
22.	Birmana	5	2,506
23.	Maler	11	2,550
24.	Govindsar	12	2,377

Source : Office of the Vikas Adhikari, Panchayat Samiti, Suratgarh.

APPENDIX IX

Village Panchayats in Panchayat Samiti, Sadulshahr during 1965–66

S. No.	Name of Panchayat	No. of villages	Population
1	2	3	4
1.	Karadwala	2	5,084
2.	Jandawala Sikhan	3	1,461
3.	Khat Sajwar	3	1,483
4.	Gadar Khera	3	1,687
5.	Sadulshahr	3	1,797
6.	Indrapura	3	1,313
7.	Kheduwala	2	1,238
8	Haripura	2	1,665
9.	Bhakhranwali	2	1,162
10.	Nakera	1	1,490
11.	Santpura	3	1,107
12.	Rasuwala	2	1,236
13.	Kishanpura Utrada	2	1,641
14.	Aleepura	3	1,454
15.	Shahpini	2	3,108
16.	Manniwali	2	1,536
17.	Naraingarh	2	1,141
18.	Morjand Khari	2	1,323
19.	Bahrampura Bodhla *alias* Kalwasiy	4	1,486
20.	Hiranwali	3	1,250
21.	Jandawali	1	1,754
22.	Pakka Sarnan	2	2,058
23.	Pakka Bhadwan	2	1,528
24.	Dholipal	1	2,340
25.	Bhagsar	6	2,081
26.	Hakamabad	5	2,082
27.	Banwala	4	1,675

APPENDIX IX—(concld.)

1	2	3	4
28.	Lalgarh	1	3,753
29.	Malar Khera	4	1,319
30.	Panniwali	4	1,902
31.	Dungarsinghpura	10	1,424
32.	Ladhuwala (24LNP)	6	1,602
33.	Ganeshgarh	5	2,153
34.	Lathawali (9 M L)	6	1,358
35.	8 H H	6	1,224

Source : Office of the Vikas Adhikari, Panchayat Samiti, Sadulshahr.

APPENDIX X

Village Panchayats in Panchayat Samiti, Bhadra during 1965–66

S. No.	Name of Panchayat	No. of villages	Population
1	2	3	4
1.	Neethrana	1	3,409
2.	Bharwana	3	2,454
3.	Gandhi Bari	1	2,324
4.	Chiriya Gandhi	3	1,893
5.	Malkhera	2	1,895
6.	Shahuwala	3	2,513
7.	Mehrana	1	1,716
8.	Ninan	1	1,905
9.	Chhani Bari	1	3,322
10.	Jhansal	3	3,172
11.	Garhichhani	4	2,162
12.	Sagra	2	1,596
13.	Suratpura	3	1,812
14.	Jogiwala	3	2,719
15.	Bhirani	1	2,316
16.	Dabri	3	2,405
17.	Sherda	3	397
18.	Gadra	3	1,916
19.	Bhangarh	4	1,131
20.	Ajeetpura	1	2,827
21.	Bhangwa	3	1,693
22.	Dobhi	7	1,869
23.	Utradabas	3	2,154
24.	Anoopshahar	2	2,621
25.	Bhadi	4	1,887
26.	Kalana	1	2,919

APPENDIX X—(concld.)

1	2	3	4
27.	Kirada Bada	4	2,553
28.	Mundriya Bara	6	2,186
29.	Kuji	6	1,848
30.	Gheoo	2	2,054
31.	Malsisar	5	2,325
32.	Doongrana	3	2,082
33.	Raslana	3	2,389
34.	Munsari	1	1,943
35.	Karanpura	2	2,369
36.	Biharipura	6	1,820
37.	Bhojasar	6	1,842

Source : Office of the Vikas Adhikari, Panchayat Samiti, Bhadra.

APPENDIX XI

Panchayat Samitiwise list of Nyaya Panchayats in Ganganagar during 1965–66

Panchayat Samiti	Nyaya Panchayats
1	2
1. Ganganagar	1. 7 B (Hindumalkot) 2. 8 Y (Mohanpura) 3. 12 F (Mirzewala) 4. 18 Z 5. 30 G G (Chunawadh) 6. 21 G G (Burjwali) 7. 2 M L (Netawali) 8. 2 H H (Hardwarigarh)
2. Sadulshahr	1. Lalgarh 2. Dungarsinghpura 3. Nakera 4. Sadulshahr 5. Dholipal 6. Pakka Sarnan
3. Hanumangarh	1. Deengarh 2. Manaksar 3. Satipura 4. Gilwala 5. Teebi 6. Dabli Kalan 7. Munda 8. Dablibas Molviwala
4. Suratgarh	1. Birmana 2. Thukrana 3. Likhmisar 4. Rampura
5. Karanpur	1. 2 F C (Pabusar) 2. 13 F F (Manaksar) 3. 32 F (Arayan) 4. 46 F (Mod) 5. Kesrisinghpur 6. 25 H (Dalpatsinghpura) 7. 42 H

APPENDIX XI—(concld.)

1	2
6. Padampur	1. 20 BB II (Padampur) 2. 6 R B (Jalluki) 3. 9 B B (Rattewala) 4. 8 N N A 5. Binjh Baila 6. Ridmalsar
7. Nohar	1. Phefana 2. Aradki 3. Ramgarh 4. Gandheli 5. Rawatsar 6. Palloo 7. Jabrasar
8. Bhadra	1. Chhani Bari 2. Dabri 3. Gandhi Bari 4. Bharwana 5. Malsisar 6. Kalana 7. Ajeetpura
9. Raisinghnagar	1. 3 F F B (Thandewala) 2. 30 P S A 3. Bhompura 4. Satjanda 5. 17 T K (Muklawa) 6. 56 R B (Ganguwala) 7. 59 G B (Ramsinghpur) 8. 78 G B 9. 30 G B (Vijainagar) 10. 1 G B (Jaitsar)

Source : Rajasthan Gazette, January 2, 1961, Part-6 C, p. 114.

CHAPTER XV

EDUCATION AND CULTURE

HISTORICAL BACKGROUND

There is no record of the existence of any large educational institutions before the introduction of the modern system of education in the district at the end of the nineteenth century. The only places where some sort of education was imparted appear to have been temples, mosques, Jain monasteries (*Upasaras*) and indigenous schools called *Pathashalas*. In the temples and *Upasarsa* Sanskrit was studied, while at some of the mosques the *Maulavis* taught the Muslim boys to recite the *Koran*. At the *Pathshalas*, which are still to be found in some of the towns and the villages, the sons of well-to-do merchants were taught to read, write and cipher. The entire teaching equipment of these institutions usually consisted of a wooden board and a piece of wood and the classes were generally held in the open on the shady side of a public street. The course of instruction extended over three years, and the fees paid per pupil for the entire period would be about six maunds of *Bajra* and rupees eight in cash, though the wealthier parents gave about a hundred rupees as a donation in addition.

These institutions did not conform to any common syllabus and the teaching was largely caste-oriented. Thus, Brahman children were taught the scriptures and the sons of traders were taught arithmetic with special emphasis on weights and measures. Female education was totally neglected, and there were no facilities for sections of the community other than those stated above.

Modern system of education was introduced in the district during the last decades of the nineteenth century. The progress in the beginning, however, was quite slow. Thus upto 1906, only the following eight schools were maintained by the State in the district[1]:

1. Erskine, K.D. *Rajputana Gazetteers*, Vol. III-B, *Statistical Tables*, 1908, Table No. LXVI, pp. 100-101.

Place	Class	Number on rolls	Average daily attendance
Bhadra	Hindi Primary	53	47
Bhadra	*Banika* Primary	47	42
Hanumangarh	*Banika* Primary	42	30
Suratgarh	*Banika* Primary	62	45
Suratgarh	Hindi Primary	31	23
Tibi	Urdu Primary	18	12
Nohar	*Banika* Primary	72	53
Nohar	Hindi Primary	22	16

Educational facilities gradually improved during the first quarter of the present century, but the actual figures for successive decades are not available as the annual Administration Reports of Bikaner State do not give separate figures for the constituent districts. However, by 1924–25 the school at Suratgarh was raised to the middle standard, while Bhadra school upgraded to lower middle standard.[1] The schools at Hanumangarh and Nohar were converted into English Primary Schools.[2] A school for railway employees was opend at Hanumangarh which had 50 students on its roll in the year 1924-25[3].

Primary vernacular schools were opened in almost all the towns and important villages of the district by the Government or by private philanthropic bodies. One aided girls school was established at Bhadra which had 32 pupils in 1924–25, while an unaided girls school was started at Ganganagar. In the same year the English Primary School at Sangaria was converted into a vernacular Middle School.

In 1928–29, the Compulsory Primary Education Act was passed by the erstwhile Bikaner State Government. Its provisions were not mandatory as the municipalities were given the option to apply them to a particular area after getting necessary sanction from the State Government. Bikaner was the first State in Rajputana where a beginning was made to enforce compulsory education in areas to be selected by the municipalities.

1. *Report on the Administration of Bikaner*, 1924–25.
2. *ibid.*
3. *ibid.*

In Ganganagar, which possessed better means of communications than other districts, the District Board was encouraged to open and maintain primary schools in the rural areas under the general supervision and guidance of the Education Department of the State. This experiment was also the first of its kind as it extended the functions of the local bodies to cover primary education. In 1947, the District Boards of Ganganagar and Suratgarh (as the district had two Boards before the merger of the erstwhile Bikaner State) had the proud privilege of maintaining 52 primary schools[1].

There was a substantial development in the field of education after the advent of the Gang Canal in the district. At the time of Independence in 1946–47 the district had one Intermediate College at Ganganagar with 669 students and the following High Schools[2] :

Name of institution	No. of students on roll
State High School, Nohar	394
State High School, Bhadra	411
Jat High School, Sangaria	237
Khalsa High School, Ganganagar	543

All towns having a population of over 2,000 were provided with a girls primary school. The State Girls' School at Ganganagar and at Karanpur imparted instruction upto Anglo Hindi Middle standard, while girls' school at Hanumangarh and Nohar prepared girls for Lower Middle Examination[3].

After the formation of Rajasthan, and during the First, Second and Third Five Year Plans educational facilities have greatly expanded. Before the implementation of these plans, there was only one Intermediate College in the district. During the First Five Year Plan, this college was raised to the degree level, while three more Degree Colleges were opened at Ganganagar in the Second Plan period, and one Agriculture College at Sangaria and one night college at Ganganagar were started during the Third Plan. One more Degree College has been, recently, opened at

1. *Report on the Administration of Bikaner State*, 1924–25.
2. *Reports on the Administration of Bikaner State*, 1945–46 & 1946–47,
3. *ibid.*

Hanumangarh. The increase in the number of elementary schools, middle schools and higher secondary schools will be clear from the following table :

	Primary/Junior Basic			Middle/Senior Basic			High/Higher Secondary		
	1956-57	1960-61	1965-66	1956-57	1960-61	1965-66	1956-57	1960-61	1965-66
Number of Institutions	400	712	901	64	85	104	13	32	40
Number of Teachers[1]	482	1,213	1,787	347	592	873	247	438	689
Number of Scholars	16,256	42,449	64,244	10,520	17,239	26,243	6,513	10,041	16,350

LITERACY AND EDUCATIONAL STANDARD

Literacy

In the census of 1901, 2.54 per cent of the people (4.7 per cent of the males and 0.16 of the females), in the erstwhile Bikaner State, were recorded as able to read and write[2]. Thus, in regard to the literacy of its population, Bikaner ranked thirteenth among thet wenty States and chiefships of Rajputana (separate figures for the district are not available).

According to the census of 1951, the percentage of literate persons in the district to the total population was 8.0, the percentage of literate male population being 13.0 and of literate females being 3.0.[3] The percentage of literacy rose to 16.82 (male 25.40, female 6.64) in 1961, which was a little above the State avarage of 15.21, but much below the all India average of 24.00.

The number of literate and educated persons according to the census of 1961 is tabulated below[4] :

District	RURAL			URBAN		
	Male	Female	Total	Male	Female	Total
1	2	3	4	5	6	7
Ganganagar	1,01,518	15,855	1,17,373	41,521	15,647	57,168

1. Number of teachers during 1956-57 relates to the boys schools only.
2. Erskine, K. D. *Rajputana Gazetteers*, Vol. III-A, The Western Rajputana States Residency, p. 373.
3. *Census 1951, Rajasthan and Ajmer District Census Hand Book*, Ganganagar, p. 13.
4. *Census of India, 1961, Raja than, District Census Hand Book, Ganganagar District*, pp. 222–223.

EDUCATIONAL STANDARDS—The educational standard may be gauged from the table given below indicating the number of scholars in various educational institutions during the year 1965-66[1].

Institutions	Boys	Girls
Colleges		
General Education	973	307
Professional Education	892	113
Schools	—	—
Higher Secondary	7,424	151
High and Secondary Schools	5,079	3,696
Senior Basic	152	8
Middle	20,016	6,067
Junior Basic	3,807	1,006
Primary	47,160	12,271
Special	4,793	743

GENERAL EDUCATION

The administrative set-up of the Education Department before the merger consisted of a Director of Education for the whole of the erstwhile Bikaner State, assisted by an Assistant Director, one Inspector of Schools, one Inspectress of Girls Schools, three Assistant Inspectors, one Assistant Inspectress of Girls' Schools and seven Deputy Inspectors. The State was divided into various circles and each circle was kept in the charge of one Assistant or Deputy Inspector[2].

After the merger, the educational institutions of the district were put under the administrative control of the Divisional Inspector of Schools, Bikaner and this division formed the part of Jodhpur-Bikaner Range which had a Deputy Director as its controlling officer. On the first of May, 1955 a separate Inspectorate for the district came into existence. The immediate controlling authority for the higher and high/secondary schools for boys, vests in the District Inspector of Schools, whose headquarters are at Ganganagar.

1. *Statistical Abstract, Rajasthan*, 1967, pp. 166–167.
2. *Report on Administration of the Bikaner State*, 1946–47,

The District Inspector of Schools is assisted by the following officers :

1. Deputy Inspector of Schools, Hanumangarh Circle
2. Deputy Inspector of Schools, Karanpur Circle
3. Sub-Deputy Inspector of Schools (Urban Area), Hanumangarh Circle
4. Sub-Deputy Inspector of Schools (Urban Area), Karanpur Circle

The girls' schools are under the administrative control of the Inspectress of girls' schools for Bikaner, Ganganagar and Churu districts with headquarters at Bikaner.

The rural primary schools were transferred to Panchayat Samitis on the second of October, 1959, under the scheme of Democratic Decentralisation and these schools are supervised by the Educational Extension Officers of their respective Panchayat Samitis. The number of Educational Extension Officers in each Panchayat Samiti is two except in Suratgarh where it is one.

In recent years a number of schools in the rural areas have been upgraded and craft orientation with a practical bias has been imparted to primary education. Prior to 1951 there was not a single high school in the rural areas which made High School education for rural students expensive as a result of which very few village boys and girls pursued their studies beyond the middle school stage. But, during the First, Second and Third Five Year Plans, a number of Higher Secondary and Secondary Schools for boys have been opened in the rural areas.

Primary Schools

Before the introduction of the Democratic Decentralisation, the primary schools in the rural areas were working under the administrative control of the District Boards. As a result of Democratic Decentralisation all such schools have been transferred to Panchayat Samitis. These schools get a grant-in-aid on hundred per cent basis for the salaries and allowances of the teachers. In case of other items of expenditure the grant-in-aid is provided on 50 per cent matching basis. As in other parts of the State, these primary schools are either full fledged basic schools or primary schools oriented to the basic pattern and an integrated curriculam is followed in all the schools. The total number of primary schools in the

district has risen from 400 in 1956–57 to 901 in 1965–66, out of which 826 are under the control of the Panchayat Samitis. The distribution of the primary schools in each Panchayat Samiti during 1965–66 is as follows :

Panchayat Samiti	Number of schools
1. Raisinghnagar	164
2. Karanpur	94
3. Hanumangarh	91
4. Suratgarh	76
5. Padampur	75
6. Sadulshahr	69
7. Nohar	93
8. Bhadra	73
9. Ganganagar	91
Total	826

The total number of teachers employed in the primary or junior basic schools during 1965–66 was 1,787 while the number of students was 64,244.[1] The total number of girls' primary schools in the district in 1965–66 was 31. Girls are also admitted to the boys' primary schools, but their total number in them is not significant at present.

Middle Schools

Within a period of ten years (from 1956–57 to 1965–66) the number of middle schools has risen from 64 to 104 (96 boys, 8 girls).

In 1965-66, the total number of boys in middle schools was 20,016 and that of girls 6,067. The number of teachers employed in the middle schools during the same year was 873 (765 males and 108 females)[2]. A list of the middle schools in the district has been given in Appendix I.

High and Higher Secondary Schools

In 1956–57, the district had 13 higher secondary and high schools (12 boys and 1 girls). Within a decade, the number has increased to 40

1. *Statistical Abstract, Rajasthan, 1967*, pp. 164–69.
2. It includes the number of teachers in senior basic schools also.

(34 boys, 6 girls), most of them are higher secondary schools. The total number of students attending these schools was 16,350 (12,503 boys and 3,847 girls) and 689 teachers (571 males and 118 females) were employed in them in 1965-66[1].

The multipurpose higher secondary schools provide teaching facilities in academic subjects as well as crafts of various kinds e.g., gardening, tailoring, woodcraft, metal-craft, stenography etc. In Government Multipurpose Higher Secondary School, Ganganagar and in Gramothan Vidya Peeth Multipurpose Higher Secondary School, Sangaria, agriculture is also taught as a subject which includes rural agriculture, horticulture, biology, chemistry and animal husbandry.

The list of the high and higher secondary schools for boys and girls and other details have been given in Appendix II.

COLLEGES, PROFESSIONAL AND TECHNICAL SCHOOLS

Colleges

Till 1965-66 there were in all six colleges in the district, four colleges (including one Bharat Sewak Samaj Evening College) for general education and two for professional education. Recently a Degree College has been opened at Hanumangarh from July, 1966. One of the professional college at Ganganagar has also been raised to the post-graduate level from July, 1966. The details of these institutions are as follows :

GOVERNMENT COLLEGE, GANGANAGAR—The institution was started as an English Middle School in 1927. It was raised to high school standard in 1938, to intermediate standard in July 1946 and to a Degree College in July, 1954. In the same year high school classes were separated from it. Three Years' Degree Course was introduced from July, 1960[2]. Upto 1938 it was affiliated to the State Education Board of the erstwhile Bikaner State. From 1938 to 1947, it was affiliated to the Board of High School and Intermediate Education, Ajmer. Since 1947, it is affiliated to the University of Rajasthan, Jaipur. The subjects taught are: General English, Hindi, Civics, English Literature, Political Science, Logic, Psychology, Philosophy, History, Geography, Economics, Sanskrit, Physics, Chemistry and Mathematics. The mediums of instruction are Hindi and English. There are three fully equipped laboratories, one each for Physics, Chemistry and Biology.

1. *Statistical Abstract, Rajasthan*, 1967, pp. 164-69.
2. The institution has been raised to post-graduate level since 1968.

The college had 29 teachers and 490 students during the 1965-66 session. The college library contains 21,508 books and subscribes to 74 periodicals and newspapers. Open shelf system operates in the library.

There are two hostels for the students, one is situated within the premises of the College and can accommodate 56 students, while the other is housed in a rented building and accommodates 32 students.

The college has extensive play-grounds and equipment for games and sports. There are a number of clubs and associations to promote literary activities among the students and to provide other amenities. Some of these are: Chatra Vikas Sanstha, History, and Political Science Association, Students Advisory Bureau, Planning Forum, Hindi Parishad, Economics Association etc.

SHRI GURU NANAK KHALSA COLLEGE, GANGANAGAR—It was established in August, 1939 as a primary school. In 1941, it was raised to the middle standard and to high school standard in 1945. Till 1948 it was affiliated to the Board of High School and Intermediate Education, Rajputana, Ajmer and thereafter to the University of Rajasthan, Jaipur. In 1957, it was raised to intermediate standard and became a degree college in 1959. In 1960 Three Years' Degree Course was introduced.[1]

The subjects taught are : General Engligh, Hindi, Civics, Political Science, History, Economics, English Literature, Physics, Chemistry, Biology and Mathematics. The mediums of instruction are Hindi and English. There are four well-equipped laboratories for Physics, Chemistry, Botany and Zoology.

The college library contains 12,736 books and the number of periodicals and newspapers which it subscribes is 56. There is open-shelf system operating in the library.

The total number of students in 1965-66 was 473 while the number of teachers was 21. Facilities are provided to the students for games and sports. In 1964-65, one of the students of the College established the All India Record in High Jump. A hostel, situated within the College premises, provides accommodation to 73 students.

1. From 1970 M.Sc. classes in Chemistry, Botany and Zoology have been started in the College.

CHAUDHRY BASU RAM GODARA GOVERNMENT GIRLS' COLLEGE, GANGANAGAR—Established in 1930 as a primary school, this institution was raised to the middle school standard in 1944 and to high school in 1947. The school was raised to the Intermediate standard in 1958 and to degree standard in 1960. In the same year high school classes were separated from it. Science classes were introduced from July, 1964. It was affiliated to the Board of Secondary Education, Ajmer upto 1947 and, thereafter, to the University of Rajasthan, Jaipur.

The subjects taught are : Hindi Literature, Sanskrit, English Literature, History, Economics, Music, Political Science, Mathematics, Physics, Chemistry and Biology. The mediums of instruction are English and Hindi.

The institution has a library containing 8,877 books and 51 periodicals. Three well-equipped laboratories are provided for Physics, Chemistry and Biology. The total number of students in 1965-66 was 329 with 20 teachers. There is no separate hostel building, some students have however, been provided accommodation in the college building itself.

There is a Students' Union in the College alongwith five associations, viz., (1) Hindi Association, (2) Debating Association, (3) Dramatic Club (4) Science Association and (5) Music Association. Various social service programmes have been organised by the college. Students are also sent on educational tours every year.

SETH GIRDHARI LAL BIHANI SANATAN DHARAM COLLEGE, GANGANAGAR—The institution was established as a high school in July, 1951 and was affiliated to the Board of Secondary Education, Ajmer. It was raised to Intermediate standard in 1957 and to the Degree standard in 1959 in arts and commerce faculties. In July, 1966 it was raised to Post-graduate standard in Commerce.[1] It is affiliated to the University of Rajasthan. The College building has been donated by Seth Girdhari Lal Bihani Education Trust. The total number of students in the year 1965-66 was 218 in Commerce faculty and 102 in Arts faculty and that of teachers 15. There is a hostel attached to the College with an accommodation for 32 students. The college library contains 7,729 books and subscribes to 86 periodicals. There is a Students' Union which organises extra-curricular activities such as debates and essay competition etc.

1. Science and law classes were started in the College in 1967 and 1969 respectively.

BHARAT SEWAK SAMAJ EVENING COLLEGE, GANGANAGAR[1]—The college was opened in 1965 by the Bharat Sewak Samaj for pre-university and Three Years' Degree Course in Arts. It is affiliated to the University of Rajasthan. The subjects taught are : Hindi, History, Economics, Political Science, Geography and Mathematics. The total number of students in 1966-67 was 60 and that of teachers 10. The institution has no building of its own and classes are held in the premises of a private higher secondary school in the evening. The college provides educational facilities to those who want to learn while earning, and accordingly most of its students also work during day time to make a living.

NEHRU MEMORIAL COLLEGE, HANUMANGARH TOWN—The College was opened in July, 1966. The institution is run by Rashtriya Sikhshan Sansthan, Hanumangarh. Municipal Board, Hanumangarh has contributed Rs. 1.20 lakhs for its establishment and the local Vyapar Mandal also donates about Rs. 0.50 lakh per year for this purpose. It is functioning at present in the building of Nehru Memorial Children School but efforts are being made to acquire land and construct its own building. The College provides education upto degree standard in Arts as well as in Science subjects. The total number of students in 1966-67 on its rolls was 75 with a teaching staff of five. As Hanumangarh has become a flourishing centre of trade and industry after the opening of Bhakra and Rajasthan Canals, a great need for the establishment of a Degree College in the town, has been fulfilled through this institution.

Gramothan Vidyapeeth, Sangaria

Established on 9th August, 1917 as a middle school, it is one of the oldest educational institutions in the district. In 1932, Swami Keshwanand, an eminent educationist and social reformer of the district, took charge of the institution and since then it has made spectacular progress in the field of education. The management committee of the Gramothan Vidyapeeth is a registered body and it supervises the work of the various educational institutions run by the Vidyapeeth. Eminent social workers and educationists of the district are among the members of the management committee. The institution aims at the intellectual, moral and social re-generation of the rural population of the district.

The institution is located on the border of Rajasthan, Haryana and Punjab and thus students from all these States enter its portals. During the last two decades the Vidaypeeth has made rapid progress and

1. Recently the college has been renamed as Mahatma Gandhi Sandhya Mahavidyalaya.

a number of new and impressive buildings have been constructed through donations received from the people of these States. The institution gets aid both from the State and the Central Governments. The other important source of income of the Vidyapeeth consists in 404.7 hectares or 1,000 acres (1,500 *bighas*) of agricultural land donated by the big and small holders of the district which yields about Rs. 0.80 lakh per annum.

The Vidyapeeth has done pioneering work in the field of social education. It has opened adult education centres, primary schools and basic schools in 287 villages of Bikaner Division. It has also opened hostels for the students at Rajgarh (Churu district), Bhadra, Bikaner and Ganganagar. The social welfare centres have also been started in twenty-five villages of the district.

Following four educational institutions and a library are at present functioning at Sangaria under the management of the Vidyapeeth.

GRAMOTHAN VIDYAPEETH COLLEGE OF AGRICULTURE—The College was established in 1962-63 and is affiliated to the University of Rajasthan. The total number of students in 1965-66 was 68 and that of teachers 17. The College hostel can accommodate 100 students. Its library has 1,000 books and it subscribes 30 journals and periodicals.

Special campaigns are undertaken like weed-eradication programme, plant protection measures, grow more food drive, farm exhibitions etc. by the college students and the staff. Farmers are provided with technical guidance by the extension staff of the institution. A model farm is also being developed by the College. The opening of a College of Agriculture has fulfilled the long cherished desire of the people of the district. As the Gang, Bhakra and Rajasthan Canals have brought a very large area of the district under cultivation, the importance of such an institution can hardly be underestimated.

NEHRU SHIKSHA MAHAVIDYALAYA GRAMOTHAN, VIDYAPEETH, SANGARIA—This is the only Teachers' Traning College in the district. The College was opened in July, 1965. The total number of students on College rolls in 1965-66 was 98 (boys 84, girls 14) with a teaching staff of nine. Ninety-five per cent of the trainees in the institution are in teaching service and only five per cent are fresh candidates. There are two hostels attached to the College, one for the boys providing accommodation to 100 students and the other for the girls having a capacity for 50 students.

GRAMOTHAN VIDYAPEETH MULTIPURPOSE HIGHER SECONDARY SCHOOL, SANGARIA—It was founded in 1917 as a middle school, and in 1942 it was raised to the high school standard and in 1955 to its present standard. The school has an impressive building and hostel which provides accommodation to two hundred students. In 1965-66, the number of teachers was 32 and that of students 750. It provides education in Humanities, Science, Commerce and Agriculture groups of subjects.

KANYA VIDYALAYA SECONDARY SCHOOL, GRAMOTHAN VIDYAPEETH, SANGARIA—Established in 1950 as a primary school, it was raised to middle school in 1954 and to the present standard in 1957. The school has a library containing 5,768 books. In 1965-66, the total number of students on roll was 352 with 20 teachers. The School has a hostel which provides accommodation to 100 boarders.

ARYA BHASHA PUSTAKALAYA—It is the biggest library in the district and contains about 25,000 books on various subjects. There are some handwritten manuscripts in the library which provide valuable source material to the research scholars. The library is open to general public also.

Besides these institutions the Vidyapeeth has opened a museum and its detailed description has been given at the end of the chapter.

Teachers Training Institutions

(i) BIHANI BASIC S.T.C. TRAINING SCHOOL, GANGANAGAR—It was established in July 1963 by Seth G.L. Bihani Education Trust. The institution has its own building and runs two separate hostels for boys and girls. There is a small library containing 3,000 books. The total number of trainees in 1965-66 was 165 (105 boys, 60 girls) and the number of teachers 12. The school, though recognised, receives no aid from the Government. The serving teachers are not admitted in this institution for training. The examinations are conducted by the Registrar, Departmental Examinations, Rajasthan, Bikaner.

(ii) BASIC S.T.C. TRAINING SCHOOL, KARANPUR—The School was established in July, 1960 and is housed in a rented building. There is a hostel attached to the school, where it is compulsory for the trainees and teachers to reside. The examinations are conducted by the Registrar, Departmental Examinations, Rajasthan, Bikaner. The total number of trainees in 1965-66 was 130 with 4 teachers.

Technical Schools

INDUSTRIAL TRAINING INSTITUTE, GANGANAGAR—The institution was established in August, 1963. It provides technical training in various crafts. The total number of trainees in the year 1965-66 was 91. The students get free training alongwith the facilities for medical treatment, games, clothing, library and board and lodgings (during practical work). A stipend of Rs. 25 per month is paid to one-third of the total trainees admitted. Scheduled Castes/Tribes trainees are awarded Rs. 45 per month as stipend. Training is given for Fitter, Electrician, Moulder, Instrument Mechanic, Turner and Wireman courses. Trainees are prepared for the All India National Council of Vocational Training Certificate (Diploma) from the Director General, Labour and Employment (Training), New Delhi.

Commercial Schools

There are several commercial schools in the district which impart training in shorthand, typewriting, sewing and embroidery etc.

SCHOOLS FOR THE CULTIVATION OF FINE ARTS

(i) MUSIC—There is a Music School run by Rashtriya Kala Mandir, Ganganagar, which is a voluntary organisation imparting training in Indian music and dancing.

Besides, music is taught as an optional subject to girl students at Ganganagar in Chaudhry Balu Ram Godara Government Girls College, Government Girls Higher Secondary School and Baby Happy School.

(ii) PAINTING—There is no recognised institution in the district to impart training in this art. Some schools and colleges, however, offer this facility as an extra-curricular activity.

ORIENTAL INSTITUTIONS

There are two unaided Sanskrit *Pathshalas* where Sanskrit is taught up to Purva Praveshika standard, one is situated at Sangaria and the other at Ganganagar.

SANSKRIT VIDYALAYA, SANGARIA—Established in 1929, it is being run in a private building known as Panchayat Mandir. The total number of students in 1965-66 was 10 and that of teachers three. Education, together with boarding and lodging, is free. It is affiliated to the Directorate of Sanskrit Education, Rajasthan.

DADHIMATHI SANSKRIT VIDYALAYA, GANGANAGAR—It was established in 1961. The classes are run in the evening and there is no hostel attached to it. The Vidyalaya contains a small library of 500 books. In 1964-65 there were 45 students and 2 teachers in the school.

SOCIAL EDUCATION

For the development of social education, cinema films are shown in the villages on educational and cultural topics by the audio-visual section of the Education Department. Libraries have been set up in the rural areas and financial assistance is given to the private and municipal libraries.

CULTURE

Literature

As most of the area in the district was barren and uninviting before the opening of the Gang Canal, the activities aimed at diffusing culture among the masses were very limited, nor did there exist the proper atmosphere and opportunity for the development of art and culture. All talent even springing from the area tended to gravitate to Bikaner—the capital of the Rathor rulers of the erstwhile Bikaner State, where their value could be appreciated and duly rewarded. In this district accordingly, there was almost a complete absence of noted writers, artists and musicians till the beginning of the twentieth century. Some literary activity did reverberate in the temples and other religious institutions, where the saint poets and preachers composed and sang verses in Rajasthani and Sanskrit in the praise of their deity. As no efforts were made to preserve such literature, very few manuscripts of those times are available now.

There was some literary ferment in the district during the reign of Maharaja Ganga Singh and his successor Maharaja Sadul Singh. Shri Laxmi Narain, alias Dau Lachhu, a poet, writer and musician of Nohar was honoured by the Government of the erstwhile Bikaner State in 1937. He wrote an unpublished work *Rukmani Mangal* in *Khari Boli.*

Among the modern poets and writers the following deserve special mention :

RANI LAXMI KUMARI CHUNDAWAT—She belongs to the family of the ex-Jagirdar of Rawatsar near Nohar. She has enriched the Rajasthani literature by her short stories based on the chivalrous deeds of the medieval Rajput heroes. She is the first woman from Rajasthan to receive Nehru award from the Government of Union of Soviet Socialist Republic for her literary creations. Some of her important works are;

Gir Unchan Unchan Gadhan, Kah re Chakwa Vaat, Amolak Vatan, Manjhal Rat, Mumal and Pabuji Ri Bat. She has also published a poem collections, *Rajasthani Doha Sangrah.*

MEGH RAJ MUKUL—Among the modern Rajasthani poets, Mukul occupies a prominent place. His Rajasthani poem *Sainani* has earned acclaim throughout India. His other poem collections are: *Umang, Ladele Geet, Janam Bhumi ke Geet, Sainani Ri Jagi Jot* and *Anu Gunj.* He has also written various Radio dramas and operas.

KUNWAR CHANDER SINGH—He is one of the earliest modern Rajasthani poets and belongs to Birkali village in Nohar tahsil. His *Dohas* and *Sorthas* (mixed couplets) are famous compositions. His two collections of poems, *Loo* and *Badali* are very much appreciated. He was awarded Raja Baldev Dass medal and the Ratnakar prize by the Kashi Nagri Pracharani Sabha on *Badali.*

PANDIT RAM CHANDRA SHASTRI—A noted litterateur of the area, Pandit Ram Chandra has been serving the cause of Sanskrit and Hindi literature since the princely times. He belongs to Sangaria and is associated with various academic and literary institutions of the district. He is a poet of Hindi and Sanskrit both. *Kavita Panchamrit,* a collection of his Hindi poems has been published while a collection of Sanskrit poems is awaiting publication.

KARNI DAN BARATH—He is a poet and a writer of both Rajasthani and Hindi. His important works are : Barwa Nal (Hindi peom collection), *Kalai ka Dhaga,* and *Prem Lata* (Hindi Novels) and *Shakuntla,* Rajasthani poem collections (unpublished). He hails from Phenhana, Nohar.

SATYA NARAIN PRABHAKAR 'AMA'—He is a poet of Rajasthani language and belongs to Suratgarh. His published works are : *Seesh Dan* (Rajasthani Khand Kavya) and *Choorian* (a satirical composition in Rajasthani poetry).

RAM CHANDRA JAIN—Among the academicians of the district, Shri Jain occupies a pre-eminent place. He is conducting research on ancient Indian culture. His published works are : *Most Ancient Aryan Society, Great Revolutions* and *Ethnology of Ancient Bharat.*

HIRA LAL MAHSHWARI—He is a prominent literary critic of Rajasthani language and literature. His *Rajasthani Bhasha aur Sahtiya,* from 1500 to 1650, was awarded academy prize by the Rajasthan Sahitya

Academy in 1961 as being the best book on criticism and research in Rajasthani language.

Other noted litterateurs of the district are : Janak Raj Pareek (poet), Mohan Singh (poet), Dharmesh Sharma (novelist) and Mohan Alok (poet).

Cultural and Literary Societies

INSTITUTE OF BHARATALOGICAL RESEARCH—Established in 1960, the Institute has undertaken research work on *Mahabharat* and *Rig Veda.* One of the objectives of the Institute is to reinterpret culture and civilization of mankind in general and Bharat in particular. The Institute has brought out some publications on the Ancient Indian History and Culture.

Among the literary societies of the district, the Navyuvak Sarvajanik Pustakalya of Ganganagar, has a prominent place. It was established in 1943 by some protagonists of Hindi in the district. *Goshthis* (Symposium) and *Kavi Sammelans* (assemblies of poets) are arranged under its auspices from time to time. It also celebrates the birthday anniversaries of the distinguished Hindi and Sanskrit poets and authors. For the last two decades, it has been a busy forum for every type of literary activity. It manages a library and reading room, a description of which has been given further in the Chapter.

Another literary society of the town is *Vitan* (established in 1964) whose members are mostly teachers and other intellectuals. It meets on every Sunday for discussions on the compositions and recitals of its members. Thus it provides encouragement to the budding litterateurs.

The Rotary Club of Ganganagar has also been contributing towards the academic life of the town as prominent persons in arts and literature are invited in its weekly meetings to deliver lectures on literary and other topics.

In the cultural sphere Rashtriya Kala Mandir, Ganganagar, established in 1951 by some enthusiastic lovers of fine arts, has been playing an important role. It has staged various Hindi plays and the proceeds of such plays are mostly contributed to some deserving cause. In 1951, it had collected rupees 3,800 for the relief of the famine stricken people of Bihar. It has also contributed a sum of rupees eight hundred for the relief of T.B. patients. Every year on the occasions *Basant Panchami* and *Shivratri,* Kala Mandir organises special functions to cultivate interest for classical

Indian music among the masses and to give encouragement to the amateur artists. It runs a music school at Ganganagar.

LIBRARIES

SARVAJANIK PUSTAKALAYA, NOHAR—It was established in 1924 A.D. and is the oldest library in the district. It is a private institution and has its own building, situated in the main market of the town. In 1966-67, there were about 6,000 books in the library and 87 newspapers and periodicals were subscribed. The expenditure of the library is met by public donations and the aid received from the Government.

NAVYUVAK SARVAJANIK PUSTAKALAYA, GANGANAGAR—Established in 1943 A.D. as a private institution, it is managed by an elected body of its members. The library had 6,816 books in 1965-66 and 61 newspapers and periodicals were subscribed in the same year. It has got its own building which is situated near the railway station. The institution has played a very important role in the propagation of Hindi in the district.

DISTRICT LIBRARY, GANGANAGAR—It was established in 1956 by the Government of Rajasthan. The total number of books on the 31st March, 1965 was 4,518 and that of periodicals 74. The building of the library has been constructed out of the funds provided by the Municipal Board, the erstwhile District Board and other local bodies. It is being run by the Education Department of the Government of Rajasthan and the controlling officer is the Deputy Director, Social Education, Bikaner. A Library Committee, appointed by the Government, supervises its work and it consists of the Collector (Chairman), Inspector of Schools (nominated member), President, Municipal Council, Ganganagar (nominated member), Principal, Government College (nominated member), two members co-opted by the Committee and the Librarian who is its ex-officio secretary. The membership of the library is open to public.

INFORMATION CENTRE—It is attached to the District Library and the publicity material received from the Government of India and Government of Rajasthan is displayed here. There are 162 reference books in the Centre.

Besides, there are two more libraries in the district, both located at Bhadra known as Shri Krishana Pustakalaya, Bhadra and Jain Sarvajanik Pustakalaya, Bhadra.

Almost all the educational institutions in the district have their own libraries for the help and guidance of their students and teachers.

The library of the Gramothan Vidyapeeth, Sangaria contains the largest number of books (25,000) in the district. Other colleges and schools too possess reasonably big libraries.

BOTANICAL GARDENS—The district does not possess any Botanical garden of note, but, Government College, Ganganagar and S. G. N. Khalsa College, Ganganagar have developed small Botanical parks for making Botanical experiments.

MUSEUM

SIR CHHOTU RAM MEMORIAL MUSEUM, SANGARIA—Situated in the premises of the Gramothan Vidyapeeth, Sangaria, this is the only museum of the district. All collections in the museum have largely been procured due to the efforts of Swami Keshawanand, an eminent educationist of the area. It has been named to commemorate the memory of Sir Chhotu Ram, a Jat leader of the Unionist Party of the undivided Punjab. The museum has twelve sections namely: 1. Archaeological, 2. Indian Arms, 3. Ancient Art, 4. Modern Art, 5. Ancient Paintings, 6. Modern Paintings, 7. Folk Culture, 8. Chinese Section, 9. Tibet Section, 10. European Section, 11. Science Section and 12. Children Section.

The museum can boast of some rare collections, for instance, a Bronze Image of Bodhisathva Padmapani (Nepal), 18th century A.D., Shanti Nath Tirthankara, a Metal Image (India), 15th century A.D. and an embossed Metal Panel of Akhtar Zamani (Begum of Babar), Rajasthan 18th century A.D.

APPENDIX I

A list of Middle Schools in Ganganagar district during 1965–66

Urban/Rural Areas	Management	Boys'/Girls'	Name and place of the institution
1	2	3	4
A–Urban Areas			
1. Anupgarh	Govt.	Boys'	1. Govt. Middle School
2. Sangaria	,,	,,	2. Govt. Middle School
3. Ganganagar	Private	,,	3. Municipal Board Middle School
,,	,,	,,	4. Jawahar Bal Mandir
,,	,,	,,	5. Sanatan Dharma Middle School
,,	,,	,,	6. Pursharthi Bal Vidyalaya
,,	Aided	Girls'	7. S. D. Kanya Pathshala
4. Karanpur	,,	Boys'	8. Shri Guru Nanak Middle School
5. Nohar	,,	,,	9. Puranmal Vidyalaya
,,	Govt.	Girls'	10. Govt. Girls Middle School
6. Hanumangarh	,,	Girls'	11. Govt. Girls Middle School
7. Bhadra	,,	,,	12. Govt. Girls Middle School
8. Gajsinghpur	,,	,,	13. Govt. Girls Middle School

APPENDIX I—(contd.)

1	2	3	4
B–Rural Areas			
1. Panchayat Samiti, Ganganagar	Govt.	Boys'	1. Govt. Middle School, Sahuwala
			2. –do– Chak–3 H Chhoti
			3. –do– Shivpur (Fatui)
			4. –do– Kaliyan
			5. –do– Rohiranwali
			6. –do– Daulatpura
			7 –do– Chak–20 G G
			8. –do– Mahiyanwali
			9. –do– Netewala
			10. –do– Mohanpura
			11. –do– Maderan
			12. –do– Sahib Singhwala
			13. –do– Sagarwala
			14. –do– Chak–19 Z
	Unaided		15. Baba Hardwarnath Trust M. S. Hardwaragarh.

APPENDIX I—(contd.)

1	2	3	4
2. Panchayat Samiti, Sadulshahr	Govt.	Boys'	16. Govt. Middle School, Dholipal
			17. –do– Nukera
			18. –do– Ganeshgarh
			19. –do– Manniwali
			20. –do– Morjhand Sikhan
			21. –do– Bhakranwali
			22. –do– Ladhuwala
			23. –do– Chak Bhagsar
			24. –do– Dolianwali
3. Panchayat Samiti, Hanumangarh	Govt.	Boys'	25. Govt. Middle School, Dhaban
			26. –do– Dabli Rathan
			27. –do– Kulchandar
			28. –do– Makkasar
			29. –do– Peerkamria
			30. –do– Daulatpura
			31. –do– Talwara
			32. –do– Nathwana
			33. –do– Rodanwali
			34. –do– Norangdesar

APPENDIX I—(contd.)

1	2	3	4
4. Panchayat Samiti, Nohar	Govt.	Boys'	35. Govt. Middle School, Ramgarh
			36. –do– Naulakhi
			37. –do– Parlika
			38. –do– Rawatsar
			39. –do– Dhandhela
5. Panchayat Samiti, Bhadra	Govt.	Boys'	40. Govt. Middle School, Ajitpura
			41. –do– Uttardawas
			42. –do– Bhangarh
			43. –do– Bhirani
			44. –do– Neethrana
			45. –do– Kalana
			46. –do– Gandhi Bari
			47. –do– Anoopshahr
			48. –do– Sherda
			49. –do– Gheoo
6. Panchayat Samiti, Suratgarh	Govt.	Boys'	50. Govt. Middle School, Peeli Banga
			51. –do– Ayalki
			52. –do– Suranwali
			53. –do– Dulmana

APPENDIX I—(contd.)

1	2	3	4
			54. Govt. Middle School, Goluwala
			55. –do– Dhaba
7. Panchayat Samiti, Raisinghnagar	Govt.	Boys'	56. Govt. Middle School, Dabla
			57. –do– Sangrana
			58. –do– Chak 16 P. S.
			59. –do– Chak 31 P. S.
			60. –do– Kikarwali
			61. –do– Kanwarpura
			62. –do– Udsar
			63. –do– Chak 12 G. B.
			64. –do– Chak–42 G. B.
			65. –do– Jaitsar
			66. –do– Ramsinghpur
			67. –do– Chak 19 P. S.
			68. –no– Chak 25 N. P.
		Girls'	69. Govt. Girls' Middle School, Bijainagar
8. Panchayat Samiti, Karanpur	Govt.	Boys'	70. Govt. Middle School, Gurusar
			71. –do– Kharlan
			72. –do– Chak–28 H.

APPENDIX I—(concld.)

1	2	3	4
			73. Govt. Middle School, Pabusar
			74. –do– Motasar Khuni
			75. –do– Sardarsinghpur
			76. –do– Rodewala
			77. –do– Arayan
			78. –do– Chak 13 F. F.
			79. –do– Chak 42 H.
			80. –do– Malkana Khurd
	Unaided	Girls'	81. Guru Nanak Kanya Keshrisinghpur Pathshala
9. Panchayat Samiti, Padampur	Govt.	Boys'	82. Govt. Middle School, Binjh Baila
			83. –do– Narsinghpura
			84. –do– Ratewala
			85. –do– Pharsewala
			86. –do– Chak 4 J. J.
			87. –do– Ridmalsar
			88. –do– Ghamurwali
			89. –do– Chanana
			90. –do– Sanwatsar
		Girls'	91. Govt. Girls' Middle School, Padampur

APPENDIX

II

List of Higher Secondary and Secondary Schools during 1965–66

Name of the School	Urban/ Rural	Year of Establishment	Raised to Middle/ Higher Secondary (in the year)	Management	Boys/ Girls	No. of books in the library	No. of students during 1965-66	No. of teachers during 1965-66	Remarks, special features
1	2	3	4	5	6	7	8	9	10
1. Govt. Multipurpose Higher Secondary School, Ganganagar	U	1927 as an English Middle School	1938 (High School) 1955 (Mult. Higher Secondary)	Govt.	Boys	8,588	949	34	
2. Bhopalwala Arya Multipurpose Higher Secondary School, Ganganagar	U	1934 as a Primary School	1947 (Middle School) 1950 (High School) 1963 (Mult. Higher Secondary School)	Private (Govt. aided)	Boys	9,453	1,250	32	Hostel accommodation for 188 students
3. Shri Guru Nanak Khalsa Higher Secondary School, Ganganagar	U	1939 as a Primary School	1942 (Middle School) 1945 (High School) 1959 (Higher Secondary School)	Private (Govt. aided)	Boys	—	1,310	36	Hostel accommodation for 250 students
4. Govt. Girls' Secondary School, Ganganagar	U	1938 as a Primary School	1944 (Middle School) 1947 (High School) 1964 (Secondary)	Govt.	Girls	6,967	1,159	34	
5. Seth G. L. Bihani S. D. Secondary School, Ganganagar	U	1951 as a High School	—	Private (Govt. aided)	Boys	4,163	447	24	Well equipped laboratory for the Biology students
6. Shri Guru Nanak Girl's Secondary School, Ganganagar	U	1945 as a Primary School	1957 (Middle School) 1961 (Secondary)	Private (Govt. aided)	Girls	2,500	1,038	29	
7. Dadhi Mathi Secondary School, Ganganagar	U	1957 as a Primary School	1961 (Middle) 1965 (Secondary)	Private (Govt. aided)	Boys	1,600	543	14	

APPENDIX

II—(contd.)

1	2	3	4	5	6	7	8	9	10
8. Govt. Secondary School, Hanumangarh Town	U	1886–87 as a Vernacular School	1924–25 (English Primary School) 1942 (Middle) 1954 (Secondary)	Govt.	Boys	4,800	594	20	
9. Govt. Secondary School, Hanumangarh Junction	U	1912 as a Primary School	1919 (Middle School) 1961 (Secondary)	Govt.	Boys	—	614	16	
10. Seth Ram Dayal Rathi, Govt. Mult. Higher Secondary School, Suratgarh	U	1902 as Anglo-Vernacular Primary School	1912 (Middle) 1956 (Higher Secondary) 1962 (Mult. Higher Secondary)	Govt.	Boys	6,000	970	26	A hostel managed by the Gramothan Vidyapeeth, Sangaria attached to the school
11. Govt. Girls Secondary School, Suratgarh	U	—	1964–65 (Secondary)	Govt.	Girls	1,421	650	12	
12. Govt. Secondary School, Karanpur	U	1930 as a Primary School	1940 (Middle) 1947 (High School)	Govt.	Boys	—	586	25	
13. Govt. Girls' Secondary School, Karanpur	U	1930 as a Primary School by Municipal Board	1947 (Middle) 1958 (High School)	Govt.	Girls	-	539	13	
14. Govt. Secondary School, Raisinghnagar	U	1932 as a Primary School	1943 (Middle School) 1950 (High School)	Govt.	Boys	5,000	365	19	
15. Govt. Girls' Secondary School, Raisinghnagar	U	—	1952 (Middle School) 1959 (High School)	Govt.	Girls	988	201	9	
16. Govt. Secondary School, Bhadra	U	During the last decades of the 19th century	1923 (Middle School) 1945 (High School)	Govt.	Boys	5,470	719	25	

APPENDIX

II—(contd.)

1	2	3	4	5	6	7	8	9	10
17. H. J. P. Govt. Secondary School, Nohar	U	1895	1921 (Middle School) 1943 (High School)	Govt.	Boys	7,000	878	20	School building constructed in 1948 through the funds donated by Seth Hajari Mal Jormal Periwal
18. Govt. Higher Secondary School, Gajsinghpur	U	1932 as a Primary School	1951 (Middle School) 1957 (Higher Secondary)	Govt.	Boys	4,440	422	16	
19. Gramothan Vidyapeeth Mult. Higher Secondary School, Sangaria	U	1917 as a Middle School	1942 (High School) 1955 (Mult. Higher Secondary School)	Private (Govt. aided)	Boys	—	750	32	Hostel has accommodation for 200 students
20. Kanya Vidyapeeth Secondary School, Sangaria	U	1950 as a Primary School	1954 (Middle School) 1957 (Secondary School)	Private (Govt. Aided)	Girls	5,768	352	20	Hostel has accommodation for 100 boarders
21. Govt. Higher Secondary School, Chhani Bari	Rural–Bhadra P. S.	1920 as a Primary School	1954 (Middle School) 1958 (Higher (Secondary)	Govt.	Boys	2,000	210	13	
22. Govt. Higher Secondary School, Ninan	,,	1928 as a Primary School	1951 (Middle School) 1958 (Higher Secondary)	Govt.	Boys	3,060	182	11	
23. Govt. Higher Secondary School, Dabri	,,	1922 as a Primary School	1952 (Middle School) 1960 (Higher Secondary)	Govt.	Boys	—	175	12	The school building has been donated by Seth Prabhu Dayal Dabriwala
24. Govt. Higher Secondary School, Raslana	,,	—	1964 (Higher Secondary)	Govt.	Boys	1,344	221	10	

APPENDIX

II—(contd.)

1	2	3	4	5	6	7	8	9	10
25. Govt. Higher Secondary School, Mirzewala	Rural–Ganga-nagar P.S.	1932 as a Primary School	1945 (Middle School) 1958 (Higher Secondary)	Govt.	Boys	2,447	185	15	
26. Govt. Higher Secondary School, Chunawadh	,,	1938 as a Primary School	1952 (Middle School) 1959 (Higher Secondary)	Govt.	Boys	2,680	327	17	
27. Govt. Secondary School, Hindumal-kote	,,	—	1961 (Secondary School)	Govt.	Boys	3,200	173	15	The school building is situated on the Indo-Pak Border and is only 300 metres away from the International Frontier.
28. Govt. Higher Secondary School, Chak–3–0	Rural–Karan-pur P. S.	1948 as a Primary School	1957 (Middle School) 1960 (Higher Secondary)	Govt.	Boys	—	255	11	
29. Govt. Higher Secondary School, Kesrisinghpur	,,	1948 as a Primary School	1952 (Middle School) 1961 (Higher Secondary)	Govt.	Boys	—	440	15	
30. Govt. Higher Secondary School, Bijaynagar	Rural–Raisingh-nagar P. S.	1936 as a Primary School	1950 (Middle School) 1956 (Higher Secondary)	Govt.	Boys	3,400	468	22	
31. Govt. Higher Secondary Schoool, Muklawa	,,	1942 as a Primary School	1947 (Middle School) 1957 (Higher Secondary)	Govt.	Boys	2,500	220	12	
32. Govt. Higher Secondary School, Padampur	Rural–Padam-pur P. S.	1936 as a Primary School	1952 (Middle School) 1960 (Higher Secondary)	Govt.	Boys	3,000	638	21	

APPENDIX

II—(concld.)

1	2	3	4	5	6	7	8	9	10
33. Govt. Higher Secondary School, Tamkot	,,	—	1952 (Middle School) 1958 (Higher Secondary)	Govt.	Boys	2,576	211	11	
34. Govt. Higher Secondary School, Puka Sarnan	Rural–Sadulshahr P. S.	1949 as a Primary School	1954 (Middle School) 1964 (Higher Secondary)	Govt.	Boys	1,830	220	12	
35. Govt. Higher Secondary School, Sadulshahr	,,	1928 as a Primary School	1950 (Middle School) 1960 (Higher Secondary)	Govt.	Boys	—	550	18	
36. Govt. Higher Secondary School, Lalgarh Jatan	,,	1929 as a Primary School	1954 (Middle School) 1959 (Higher Secondary)	Govt.	Boys	1,871	306	15	
37. Govt. Higher Secondary School, Mala Rampura	,,	1943 as a Primary School	1952 (Middle School) 1959 (Higher Secondary)	Govt.	Boys	2,000	165	14	
38. Govt. Secondary School, Likhmisar	Rural–Suratgarh Panchayat Samiti	—	Raised to Higher Secondary in 1958 but downgraded to Secondary in 1964	Govt.	Boys	1,330	121	—	Has a Hostel
39. Govt. Higher Secondary School, Tibi	Rural–Hanumangarh Panchayat Samiti	—	1959 (Higher Secondary)	Govt. upto 1959 Distt. Board, Ganganagar	Boys	1,940	191	13	Hostel accommodation for 25 students
40. Govt. Higher Secondary School, Nohar	Rural–Nohar Panchayat Samiti	1921 as a Primary School	1953 (Middle School) 1959 (Higher Secondary)	Govt.	Boys	3,000	275	14	

CHAPTER XVI

MEDICAL & PUBLIC HEALTH SERVICES

EARLY HISTORY

Before the introduction of Allopathic system of medicine and surgery there were four classes of professionals who dealt in the art of healing and to whom people went for the cure of their bodily ailments. The first and the foremost of these consisted of *Vaidyas*, who were most numerous and were mostly Hindu physicians administering *Ayurvedic* system of medicine based on herbal pharmacology. The profession of *Vaidyas* was hereditary and their knowledge and skill passed on from father to son. The second category consisted of *Hakims*, who were mostly Mohammedans and practised the *Unani* system of medicine. Then came the *Pansaris*, who were prescribing apothecaries and last but not the least were the ascetics who believed in the efficacy of *Jantra* (magic), *Tantra* (charm), *Dora* (tying a piece of thread round the wrist), *Jhar Phunk* (exorcism by blowing on the face of the patient), *Grahshanti* (propitiating the stars) and, of course, various incantations *(Mantras)*.

Surgery had, from ancient times, been largely practised by barbers and *Jurrahs* or Muslim surgeons. *Singi Lagana* was resorted to in cases of swellings and infected wounds. The doctor would use a sharp curved knife to make an incision above the affected part, and then would place the *Seengi*, which was either a cow's horn or a horn shaped brass tube, over the wound and by sucking, induce the blood to flow. After sometime the blood would be mopped up and powdered turmeric applied to the wound. It was believed that bloodletting was good for health. This type of surgery was practised by a professional class of itinerant doctors called *Jurrahs*. The leech treatment *(Jonk Lagana)* was used by barbers, who were also employed to extract guinea-worms. Many diseases and injuries were treated by the *Chanchwa* system. This treatment consisted of branding a part of the body (according to the nature of disease) with a sickle, rod of iron or a piece of gold.

Of epidemics, small pox, for which the most fatal months are February, March and May, used to cause considerable mortality in former

days.[1] But the virulence of the disease has now been considerably reduced by vaccination which was introduced in 1860-61 in the erstwhile Bikaner State, including Ganganagar district. No progress could, however, be made till 1881 when regular vaccinations were started. In 1906-07, a staff of eleven men under an Indian Superintendent successfully vaccinated 21,800 persons in whole of the State (separate figures for the district not available)[2]. Vaccination was nowhere compulsory but was, on the whole, popular.[3] Cholera appeared in the district in 1892 in a virulent form between January and July. Plague and Influenza visited the district in 1917-18 and took a heavy toll.

The first modern dispensary was opened at Suratgarh in November 1885[4] and in 1886 dispensary buildings were constructed at Nohar, Bhadra and Hanumangarh, but their opening was delayed for want of qualified doctors[5]. Dispensaries in Nohar, Bhadra and Hanumangarh were opened in 1887[6], 1888[7] and 1891[8] respectively. In 1893-94 a dispensary was opened at Mirzewali but it was closed later on[9]. Bhadra dispensary became a hospital in July 1898[10], and by the end of 1901, indoor beds were provided in other dispensaries also[11]. Thus in the year 1907 there were four hospitals and one dispensary in the district, the later solely catering to the requirements of the railway employees[12]. Total number of cases treated in these places in that year was 23,903, with average daily attendance of indoor and outdoor patients being 8.06 and 165.65 respectively[13].

After the construction of Gang Canal in 1927, there was great expansion of medical services in the Canal Colony area. Medical institutions were opened as follows :

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1. Erskine, K. D. *Rajputana Gazetteers*, Vol. III-A, 1909, p. 333.
2. *ibid.*, p. 378.
3. *ibid.*
4. *Rajputana Political Administration Report*, 1885-86.
5. *ibid.*, 1886-87.
6. *ibid.*, 1887-88.
7. *ibid.*, 1888-89.
8. *Report on the Administration of the Bikaner State*, 1893-94.
9. Erskine, K. D., *Rajputana Gazetteers*, Vol. III-A, 1909, p. 377.
10. *Rajputana Political Administration Report*, 1898-99.
11. Erskine, K. D., *Rajputana Gazetteers*, Vol. III-A, 1909, p. 377.
12. *ibid.*
13. Erskine, K. D., *Rajputana Gazetteers*, Vol. III-B, Table LXVIII.

Name	Year of establishment
Karanpur Dispensary	1927–28
Anupgarh Dispensary	1929–30
Bijainagar Dispensary	1929–30
Ganganagar Hospital	1930–31
Raisinghnagar Dispensary	1930–31

At the time of formation of Rajasthan, there were eleven medical institutions in the district with a provision for 92 indoor patients. It was during the First Five Year Plan that the post of District Medical and Health Officer was created and a district medical store was established at Ganganagar. A Government dispensary was also opened at Kalana in the same period. During the Second Five Year Plan, five Primary Health Centres were opened at Raisinghnagar, Karanpur, Sangaria, Peeli Bangan and Ghamurwali in addition to one dispensary at Sadulshahr. The District Board dispensaries at Gulabewala, Lilanwali and Hindumalkote were transferred to the Medical Department in 1959 while the R.A.C. dispensaries at Raisinghnagar and Ganganagar and the police dispensary at Ganganagar were transferred to the Medical Department in 1960. One Block dispensary at Dholipal was also made over to this department. During the Third Five Year Plan four more Primary Health Centres were opened at Rawatsar, Sadulshahr, Chhani Bari and Shivpur. An Employees' State Insurance Dispensary was started in 1959 at Ganganagar and one eight bedded hospital was opened at Anupgarh.

In addition to the above, vaccination and Anti-Rabic Sections were started in the General Hospital, Ganganagar, followed by the setting up of Public Health and Pathological Laboratories.

GENERAL STANDARD OF HEALTH

Vital Statistics

Before the formation of Rajasthan, the collection of vital statistics with regard to births and deaths in the municipal towns was done through the municipalities, while in other towns this task was entrusted to the Police *Chowkis*. In the rural areas this information was furnished by *Chaudharis* and Patwaris who, however, did not maintain any record of such figures. The mode of recording in the towns too was not sound, as the reporting was the responsibility of the ward sweepers, who collected this information, which was equally faulty. Obviously such figures could

not be relied upon. The only available records of births and deaths are of Ganganagar town and the following table shows the brith and death rates for ten years ending 1966[1] :

Year	Birth rate	Death rate
1957	4.8	11.2
1958	5.7	7.2
1959	8.2	5.1
1960	16.5	8.1
1961	12.3	1.4
1962	10.3	7.0
1963	13.6	7.4
1964	8.9	7.1
1965	12.0	6.5
1966	9.1	5.8

A comparison of the birth and death rates reveals a steady variation from year to year e.g. in 1957 the birth rate was 4.8 per thousand as against a death rate of 11.2, while in 1961 the birth rate was 12.3 against the death rate of 1.4.

Important Causes of Mortality

The deaths registered for the seven years ending in 1966 were due to following causes[2] :

Year	Urban areas	Smallpox	Fever-Malaria & others	Dysentery & Diarrhoea	Respiratory diseases	Injuries & Suicides	Other causes	Total registered death
1960	9	5	286	22	86	17	388	804
1961	7	28	253	11	55	31	430	808
1962	8	49	213	41	88	11	335	737
1963	10	13	291	29	89	34	318	774
1964	9	3	239	37	75	20	423	797
1965	9	4	152	17	75	22	405	675
1966	6	–	92	23	60	23	415[3]	613

1. *Statistical Abstract, Rajasthan*, 1962 and 1967
2. *Statistical Abstract, Rajasthan*, 1960 onwards.
3. It includes 32 deaths not reported.

These figures show that the main causes of death were the specific fevers, respiratory diseases and malaria.

Common Diseases

The following table shows the total number of patients treated at Government hospitals and dispensaries of the district for the more common diseases during the year 1965-66[1] :

Diseases	Number of patients treated
Tuberculosis Lungs	1,482
Tuberculosis Other Form	587
Syphilis	57
Gonococcal Infection	41
Infective hepatitis	404
Typhoid	1,180
Dysentery	8,388
Diphtheria	64
Tetanus	64
Poliomyelitis	22
Measles	65
Other Helminthic Infection	415
Guinea-worm	32
Other Parasitic & Infectious Diseases	14,462
Poisoning	48
Leprosy	7
Encephalitis	5
Total	27,323

The incidence of various common diseases prevalent amongst the population of the district could be shown by the number of persons that suffered from each of them per one thousand of population.

1. Source : Office of the District Medical and Health Officer, Ganganagar.

Diseases	Incidence of disease per one thousand of population (approximately)
Tuberculosis Lungs	1.43
Tuberculosis Other Form	0.57
Syphilis	0.05
Gonococcoal Infection	0.04
Infective Hepatitis	0.39
Typhoid	1.14
Dysentery	8.09
Diphtheria	0.06
Tentanus	0.06
Poliomyelitis	0.02
Measles	0.06
Other Helminthic Infection	0.40
Guinea-worm	0.03
Other Parasitic & Infectious Diseases	13.95
Poisoning	0.05
Leprosy	0.007
Encephalitis	0.005
Total	26.342

Longevity

A sample survey conducted during the 1951 Census shows the following age-groupwise distribution of population[1] :

Age Group	Population	Percentage
0–14	22,815	44.01
15–34	16,582	31.99
35–54	8,737	16.85
55+	3,705	7.15
Age not stated	2	0.00
All Ages	51,841	100.00

1. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ga[illegible]ar,* Part I, p. 71.

The total population according to various age groups in the district as per the Census of 1961, was as follows[1] :

Age Group	Population	Percentage
0–14	4,68,087	45.12
15–34	3,35,502	32.34
35–54	1,67,258	16.12
55+	65,177	6.28
Age not stated	1,399	0.14
All Ages	10,37,423	100.00

In a population which is growing fast it is natural that the percentage of those under 15 years of age should be large. The big drop after 34 years, however, suggests that the expectation of life is rather low inspite of the fact that the people of the district are generally prosperous in comparison to the other districts of Rajasthan. One obvious reason could be the extreme climatic conditions and lack of sanitation. Even in the municipal areas the sanitary conditions are not very satisfactory. The condition in the rural areas is still worse as the villagers do not get those civic amenities, which are available to the inhabitants of the towns. Rearing of cattle, though a paying proposition, is a health hazard as the cattle have to be kept near human habitation. With the extension of medical facilities and pointed attention being given to the improvement of sanitary condition by the village panchayats, it is expected that the health of the people would improve thereby increasing the expectancy of life.

Epidemics

Out-break of epidemics and dangerous diseases like cholera and plague has now been rare in this area. There have been only scattered cases of smallpox in the recent years. A statement showing smallpox cases and deaths yearwise from 1961 to 1965 (June) in Ganganagar district is as follows[2] :

1. *Census of India, 1961, Rajasthan, District Census Handbook, Ganganagar District*, p. 217.
2. Source : Office of the District Health Officer, Incharge, National Smallpox Eradication Programme Unit, Ganganagar.

Year	Smallpox cases	Deaths
1961	145	11
1962	109	8
1963	15	—
1964	15	1
1965	15	2

The National Smallpox Eradication Programme was launched in this district on 7th January, 1963 and the disease can be said to have been successfully controlled. In the year 1963-64, the number of total vaccinations done was 6,98,853 while by June 1965, this number increased to 9,33,461, a record figure which put Ganganagar in the first district for doing the maximum number of total vaccinations. A team of 18 vaccinators has been working under this programme since April, 1966 under the supervison of District Health Officer who is also holding charge of National Smallpox Eradication Programme.

National Malaria Control Programme was launched in 1957 in order to check the spread of malaria. The district was divided into three sub-units for this purpose, namely, Ganganagar, Hanumangarh and Nohar.

D.D.T. spraying operations were started from the year 1958, and spleen survey-en-masse was taken up simultaneously. Since March 1960, the control programme has been replaced by the Malaria Eradication Programme and the surveillance operations were started in the month of August 1960. Twenty-five sectors and 100 sections were formed for the surveillance work. Following malaria positive cases were detected since the year 1961 : [1]

Year	1961	1962	1963	1964	1965
Number of positive cases	27	14	13	161	57

A team of one Medical Officer, one Assistant Unit Officer, two Senior Malaria Inspectors, three Malaria Inspectors, two Technicians, one Mechanic, 25 Surveillance Inspectors, 93 Surveillance Workers, two Superior Field Workers and two Field Workers were on the staff of the National Malaria Eradication Programme Unit in 1966 for carrying out the Malaria Eradication Programme.

1. Source : Office of the Director, Medical and Health Services, Rajasthan, Jaipur.

B.C.G. vaccination was introduced in the district in the year 1957-58 and a team of 42 B.C.G. Technicians was detailed for this work. The first and second round of B.C.G. vaccinations were done in 1957-58 and 1961 respectively in all the tahsils of the district with the following results[1] :

	Tested	Read	Vaccinated
Round I	3,84,529	2,38,180	1,27,904
Round II	85,478	48,440	28,833

Natural immunity has developed among the people of the district through B.C.G. vaccine. No further round of vaccination has been undertaken as yet. There is a twenty bedded T.B. Isolation Ward in the General Hospital, Ganganagar. A T.B. Clinic has also been established in this hospital on 15th July, 1966 with the following working staff : one C.A.S., one compounder, three technicians, one lower division clerk and two T.B. health visitors.

Infirmities

According to the Census of 1951, the following number of persons were suffering from major infirmities[2] :

Age-group	Blind		Deaf-Mute		Insane		Leper	
	Male	Female	Male	Female	Male	Female	Male	Female
TOTAL	730	472	166	81	79	47	9	5
Age 0	2	—	—	1	—	—	—	—
1-4	14	2	1	2	1	1	1	—
5-9	29	25	17	7	3	5	—	—
10-14	39	23	17	13	8	6	1	—
15-24	58	24	29	11	11	8	1	1
25-34	68	22	26	8	9	10	1	3
35-44	57	49	20	17	16	7	1	1
45-54	67	57	11	5	11	3	1	—
55-64	150	109	14	10	14	3	1	—
65-74	130	72	14	5	2	3	1	—
75 and over	115	85	17	1	4	1	1	—
Age not stated	1	4	—	1	—	—	—	—

1. Source : Office of the Supervising Medical Officer Mass B.C.G. Campaign, Rajasthan, Jaipur.
2. *Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar*, Part I, pp. 102-103.

Thus total infirmities according to 1951 Census were 1589, consisting of 984 males and 605 females.

HOSPITALS AND DISPENSARIES

There were nineteen hospitals, three dispensaries, nine Primary Health Centres and three special hospitals in the district during the year 1966. Besides these, five medical institutions were being run by the Rajasthan Canal Board (3), Employees' State Insurance Corporation (1) and Suratgarh Agriculture Farm (1). The administrative control over all the Government medical institutions is exercised by the District Medical and Health Officer with his headquarters at Ganganagar. A list of all such institutions as were functioning in the district at the close of 1966, alongwith the number of beds, is given below :

Hospitals and Dispensaries	No. of beds
1. General Hospital, Ganganagar	111
2. Government Hospital, Bhadra	16
3. Government Hospital, Hanumangarh	16
4. Government Hospital, Kalana	6
5. Government Hospital, Nohar	10
6. Government Hospital, Padampur	8
7. Government Hospital, Ganguwali	6
8. Government Hospital, Suratgarh	2
9. Government Hospital, Sadulshahr	6
10. Government Hospital, Sri Bijaynagar	3
11. Government Hospital, Dholipal	6
12. Government Hospital, Gulabewala	4
13. Government Hospital, Anupgarh	8
14. Rajasthan Armed Constabulary Hospital, Ganganagar	6
15. Rajasthan Armed Constabulary Hospital, Raisinghnagar	6
16. Government Hospital, Anupgarh (Aid Post)	2
17. Government Hospital, Lilanwali (Aid Post)	2
18. Government Hospital, Baramsar (Aid Post)	2
19. Government Hospital, Hindumalkot (Aid Post)	2

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25–34	68	22	26	8	9	10	1	3
35–44	57	49	20	17	16	7	1	1
45–54	67	57	11	5	11	3	1	—
55–64	150	109	14	10	14	3	1	—
65–74	130	72	14	5	2	3	1	—
75 and over	115	85	17	1	4	1	1	—
Age not stated	1	4	—	1	—	—	—	—

Source : Office of the Supervising Medical Officer Mass B.C.G. Campaign, Rajasthan, Jaipur.

Census, 1951, Rajasthan and Ajmer, District Census Hand Book, Ganganagar, Part I, pp. 102–103.

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7. Government Hospital, Ganguwali	6
8. Government Hospital, Suratgarh	2
9. Government Hospital, Sadulshahr	6
10. Government Hospital, Sri Bijaynagar	3
11. Government Hospital, Dholipal	6
12. Government Hospital, Gulabewala	4
13. Government Hospital, Anupgarh	8
14. Rajasthan Armed Constabulary Hospital, Ganganagar	6
15. Rajasthan Armed Constabulary Hospital, Raisinghnagar	6
16. Government Hospital, Anupgarh (Aid Post)	2
17. Government Hospital, Lilanwali (Aid Post)	2
18. Government Hospital, Baramsar (Aid Post)	2
19. Government Hospital, Hindumalkot (Aid Post)	2

Dispensaries	No. of beds
1. Police Dispensary, Ganganagar	—
2. Government Dispensary, Raisinghnagar	—
3. T.B. Clinic, Ganganagar	—
Primary Health Centres	
1. Primary Health Centre, Karanpur	20
2. Primary Health Centre, Raisinghnagar	20
3. Primary Health Centre, Ghamurwali	6
4. Primary Health Centre, Peeli Banga	6
5. Primary Health Centre, Sangaria	6
6. Primary Health Centre, Sadulshahr	6
7. Primary Health Centre, Rawatsar	6
8. Primary Health Centre, Chhani Bari	6
9. Primary Health Centre, Shivpur	6
Special Hospitals	
1. Northern Railway Hospital, Hanumangarh Junction	3
2. Northern Railway Hospital, Suratgarh Junction	1
3. District Jail Hospital, Ganganagar	4
Other Institutions	
1. Rajasthan Canal Project Hospital, Hanumangah Junction	8
2. Rajasthan Canal Project Hospital, Suratgarh	6
3. Rajasthan Canal Project Dispensary, Bijaynagar	—
4. Employees' State Insurance Hospital, Ganganagar	2
5. Agricultural Farm Dispensary, Suratgarh	—

Free treatment is extended in all the institutions. Total number of outdoor and indoor patients treated in the Government institutions for the ten years ending 1966 have been given in the following table[1] :

1. *Statistical Abstract, Rajasthan*, 1958 onwards.

Year	Indoor Patients						Outdoor patients treated
	Treated	Cured	Relieved	Mode of discharge		Percentage of Deaths other wise to total Indoor patients	
				Discharge	Died		
1957	4,600	2,864	731	793	115	2.5	2,07,595
1958	4,262	3,254	659	493	115	2.7	1,96,205
1959	4,905	3,312	847	583	149	3.0	2,57,568
1960	5,531	3,706	1,137	524	148	2.7	3,05,854
1961	5,674	4,032	974	513	134	2.4	3,24,283
1962	6,108	4,426	998	555	127	2.1	3,26,554
1963	6,698	4,961	1,032	225	129	1.9	3,61,429
1964	9,122	5,395	1,209	488	111	1.2	4,09,125
1965	8,796	5,590	1,338	915	250	2.8	3,96,034
1966	8,502	1,495	2,193	767	306	3.6	4,20,131

A brief description of the hospitals and Primary Health Centres is as follows:

GENERAL HOSPITAL, GANGANAGAR—The hospital was opened in the year 1930–31 and was the second best in the erstwhile Bikaner State. It had separate male and female wards and an operation theatre. At the time of formation of Rajasthan it had provision for 55 beds. In August, 1957 a Dental Clinic was added with one doctor, one compounder and one technician. In the same year under the Hospital Planning Scheme the hospital was upgraded resulting in an increase of 20 beds, one doctor, one nurse, five compounders and one technician. In February 1958, a Family Planning Centre was set up in the premises of the General Hospital with one doctor and one lady health visitor on its staff. Training of compounders was started in June, 1959 with 15 seats, and *Dais* training centre was opened in March, 1960 with 30 seats. A children ward with six beds was added to the hospital in the same year. Twenty T.B. Isolation beds alongwith a staff of two doctors, three compounders and one mid-wife were provided in 1961. During the Third Five Year Plan one urban Family Planning Centre was opened and an eye department was established in the hospital with a provision for ten indoor patients of eye surgical cases. Auxiliary Nurses Mid-wife training has been started by the Indian Red

Cross Society since 1st July 1965 and thirty girl students were being trained in the year 1966-67. Besides this, Anti-Rabic Centre, Public Health Laboratory, Pathological Laboratory, Maternity Child Welfare Centre and X-ray plant have been provided to cater to the needs of the people. There are 111 beds, 81 for males and 30 for females, in the hospital. The staff consists of 11 doctors, 16 compounders, 7 technicians, 3 staff nurses, 1 lady health visitor, 3 mid-wives and 1 *Dai*. There are two private wards. In the year 1966, 76,907 outdoor patients and 5,378 indoor patients were treated. It caters to the needs of not only this district but also of the adjoining areas in the Punjab.

GOVERNMENT HOSPITAL, BHADRA—Established as a dispensary in 1888 and raised to a hospital in July, 1898, it is one of the oldest institutions in the district. Its progress, however, has not been spectacular because Bhadra was not in the Gang Canal Colony where medical institutions made more rapid progress. The staff comprises one doctor, two compounders and one mid-wife. There are 16 beds, three X-ray plants, and a Maternity and Child Welfare Centre in the hospital. It was provided with an Anti-Rabic Centre in 1965.

GOVERNMENT HOSPITAL, HANUMANGARH TOWN—The hospital was established in 1891. The staff comprises one doctor, two compounders and one mid-wife. There is a provision for sixteen indoor patients One Maternity and Child Welfare Centre is attached to the hospital.

GOVERNMENT HOSPITAL, KALANA—The staff of the hospital consists of a doctor, a *Dai* and a compounder. There is accommodation for six indoor patients.

GOVERNMENT HOSPITAL, NOHAR—It was established in 1887. The staff consists of one doctor, two compounders and one mid-wife. The total bed strength is ten. There is a Maternity and Child Welfare Centre attached to the hospital.

GOVERNMENT HOSPITAL, PADAMPUR—It is a eight bedded hospital and the staff comprises a doctor, a compounder and a *Dai*.

GOVERNMENT HOSPITAL, GANGUWALI—Established in 1964 the hospital provides accommodation for six indoor patients. There is a doctor a mid-wife and two compounders on its staff.

GOVERNMENT HOSPITAL, SURATGARH—The hospital is the oldest medical institution in the district as it was opened in November 1885.

There is one doctor, two compounders and one mid-wife on the staff of the hospital. It provides accommodation for two indoor patients.

GOVERNMENT HOSPITAL, SADULSHAHR—It is a six bedded hospital. The staff consists of a doctor, a *Dai* and a compounder.

GOVERNMENT HOSPITAL, BIJAINAGAR—The hospital was established in 1929-30. It provides accommodation for three indoor patients. A doctor, a *Dai* and a compounder are on its staff.

GOVERNMENT HOSPITAL, DHOLIPAL—The staff of the hospital consists of a doctor, one compounder and one *Dai*. There is accommodation for six indoor patients.

GOVERNMENT HOSPITAL, GULABEWALA—The hospital was run by the Ganganagar District Board prior to 1959. After the dissolution of the Board in 1959, it was transferred to the Medical and Health Department of Government of Rajasthan. The staff of the hospital consists of one doctor and one compounder and it has four beds.

GOVERNMENT HOSPITAL, ANUPGARH—Established in 1929-30 the hospital has a bed strength of eight. The staff consists of a doctor, a mid-wife and two compounders.

RAJASTHAN ARMED CONSTABULARY HOSPITAL, GANGANAGAR—Its administrative control was transferred to Medical and Health Department in March 1960. It has provision for six indoor patients and the strength of the staff is one doctor and two compounders.

RAJASTHAN ARMED CONSTABULARY HOSPITAL, RAISINGHNAGAR—This hospital also was taken over by the Medical and Health Department in March 1960. It has a bed strength of six. The staff consists of a doctor and two compounders.

GOVERNMENT HOSPITAL, ANUPGARH (AID POST)—It was established in 1958. The post has two beds and is looked after by one compounder.

GOVERNMENT HOSPITAL, LILANWALI (AID POST)—This post was taken over by the Medical and Health Department from the Ganganagar District Board in 1959. It has accommodation for two indoor patients and there is only one compounder on its staff.

GOVERNMENT HOSPITAL, BARAMSAR (AID POST)—There is one compounder on the staff of the Aid Post. It has provision for two indoor patients.

GOVERNMENT HOSPITAL, HINDUMAL KOT (AID POST)—The administrative control of the post was transferred from the District Board, Ganganagar to the Medical and Health Department, Government of Rajasthan in 1959 after the dissolution of the Board. It has a bed strength of two and one compounder is employed on the staff.

Primary Health Centres

PRIMARY HEALTH CENTRE, RAISINGHNAGAR—The administrative control of this centre was transferred from the Community Development Block to the Medical & Health Department in November 1956. It has a provision for twenty indoor patients. The staff consists of a doctor, four mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health workers. A *Dais* Training Centre was opened in October 1960 with six seats. In the year 1964-65 the institution was provided with an X-ray plant. During the Third Five Year Plan a Rural Family Planning Centre was added. An Anti-Rabic Centre has been provided since 1965.

PRIMARY HEALTH CENTRE, KARANPUR—Established in 1959, the centre has a bed strength of twenty. There is one doctor, four mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health workers on the staff of the centre. Rural Family Planning Centre was opened in 1958. *Dais* training was started in this institution in June 1960. An Anti-Rabic Centre was established in 1965. The centre is equipped with an X-ray Plant and a small pathological laboratory.

PRIMARY HEALTH CENTRE, SANGARIA—The centre was established in 1958. The bed strength is six and the staff consists of a doctor, four mid-wives, one compounder, one sanitary inspector, a lady health visitor and four auxiliary health workers. During the Third Five Year Plan one Rural Family Planning Centre was opened at this place and in 1964 the institution was provided with an Anti-Rabic Centre.

PRIMARY HEALTH CENTRE, PEELI BANGA—The centre was opened in 1958. It has accommodation for six indoor patients. The staff consists of a doctor, four mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health workers. A Rural Family Planning Centre is also attached to it.

PRIMARY HEALTH CENTRE, GHAMURWALI—Established in 1966, the centre has a bed strength of six. There are one doctor, four mid-wives one lady health visitor, one compounder, one sanitary inspector and 4 auxiliary health workers on its staff. A Rural Family Planning Centre is attached to the institution.

PRIMARY HEALTH CENTRE, RAWATSAR—The centre was opened in 1961-62 and has a bed strength of six. The staff consists of a doctor, four mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health workers. A Rural Family Planning Centre has also been opened at the centre in 1964. An Anti-Rabic Centre has been provided in the institution since 1965.

PRIMARY HEALTH CENTRE, CHHANI BARI—Established in the year 1964, it has one doctor, four mid-wives, one lady health visitor, four auxiliary health workers, one compounder and one sanitary inspector on its staff. A Rural Family Planning Centre has been attached to the institution. The centre has provision for six indoor patients.

PRIMARY HEALTH CENTRE, SHIVPUR—The centre was opened on 15th August, 1965 with a staff of one doctor, four mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health visitors. A Rural Family Planning Centre too has been provided in this institution. It has a bed strength of six.

PRIMARY HEALTH CENTRE, SADULSHAHR—The centre was opened in 1960. The staff consists of one doctor, 4 mid-wives, one lady health visitor, one compounder, one sanitary inspector and four auxiliary health workers. A Rural Family Planning Centre is attached to the centre. It has a bed strength of six.

Special Hospitals

RAILWAY HOSPITALS—Northern Railway is running two Railway hospitals at Hanumangarh and Suratgarh Junctions. The hospital at Hanumangarh Junction is housed in a newly constructed building having an operation theatre and a maternity room. The staff consists of three doctors (two males and one female), one compounder and one mid-wife. It has arrangements for three indoor patients. There is a Family Planning centre attached to the hospital. Average daily out-door attendance in the dispensary is 300. Suratgarh hospital has accommodation for only one indoor patient.

DISTRICT JAIL HOSPITAL, GANGANAGAR—It is a four bedded hospital. One part-time doctor and one compounder are on the staff of the hospital.

Other Institutions

RAJASTHAN CANAL PROJECT HOSPITAL, SURATGARH—Established in 1960, the hospital is located in the Rajasthan Canal Project Colony. It has a bed strength of six. There is one doctor, one compounder and one mid-wife on the staff of the hospital. It renders medical aid to about 3,500 employees and their families residing in the Canal Colony and to about 10,000 labourers working on the site of the Rajasthan main canal.

RAJASTHAN CANAL PROJECT HOSPITAL, HANUMANGARH—The hospital was established in 1961 for the benefit of the Rajasthan Canal Project employees. There is provision for eight indoor patients (6 males and 2 females). The staff consists of a doctor and two compounders. It is equipped for minor surgical operations.

EMPLOYEES' STATE INSURANCE HOSPITAL, GANGANAGAR—It was started in March 1959 in a rented building but was later on shifted to the present building, newly constructed by the Employees' State Insurance Corporation alongwith the staff quarters. There is no provision for indoor patients but two beds have been provided for emergency purpose. The staff consists of two doctors (one male and one female), three compounders, one nurse, one mid-wife and one lady health visitor. There is a Family Planning Centre looked after by the lady doctor.

Maternity and Child Welfare Centres

To provide better care and medical attention to would be mothers in both pre-natal and post-natal stages and also to the new born from their birth up to a certain age, five Maternity and Child Welfare Centres have been started at the following places in the district :

Centre	Beds
Municipal Maternity & Child Welfare Centre, Ganganagar	25
Maternity & Child Welfare Centre, Ganganagar	10
Maternity & Child Welfare Centre, Bhadra	2
Maternity & Child Welfare Centre, Hanumangarh	6
Maternity & Child Welfare Centre, Nohar	6

Family Planning Centres

With a view to protecting the health of mothers and checking the alarming rate of growth of population, a State-wide family planning scheme has been launched. Two urban and nine rural family planning centres were opened in the district during the second and third Five Year

Plans at Ganganagar (urban), Hanumangarh (urban), Karanpur (rural), Raisinghnagar (rural), Sangaria (rural), Peeli Banga (rural), Sadulshahr (rural), Chhanibari (rural), Shivpur (rural), Rawatsar (rural) and Ghamurwali (rural). One Family Planning Centre has been started in the Employees' State Insurance Hospital, Ganganagar. There is one Mobile Family Planning Surgical Unit at Ganganagar. This unit is working under the direct supervision of District Medical and Health Officer. The unit has been provided with a public van, equipment and Publicity Assistant for family planning propaganda work.

Contraceptives are freely distributed and advice is given by the staff of these units on family planning. Film shows and exhibitions are organised in the rural areas for making the people conscious to the need of having small families. In the year 1966-67, 1032 vasectomy operations were performed and 1592 Intra Uterine Contraceptive Device insertions were carried out. The District Health Officer is ex-officio District Family Planning Officer. There is also a district sub-committee to supervise the work and progress of family planning.

Anti-Rabic Centres

There were six Anti-Rabic centres at the following places in the district during 1965-66 :

Place	Year
General Hospital, Ganganagar	Established during the Princely Rule
Primary Health Centre, Sangaria	1964
Primary Health Centre, Karanpur	1965
Primary Health Centre, Raisinghnagar	1965
Primary Health Centre, Rawatsar	1965
Government Hospital, Bhadra	1965

RED CROSS SOCIETY—The Rajasthan State Branch of the Indian Red Cross Society is running a Training School at Ganganagar for the training of nurses and mid-wives so as to reduce the shortage of nursing personnel. In 1966-67 the number of trainees in the school was thirty. A hostel and a school building are being constructed by the Society for this purpose[1].

1. Source: Office of the Secretary, Indian Red Cross Society (Rajasthan State Branch), Jaipur.

Besides the State owned institutions, there are fourteen qualified private doctors, nine at Ganganagar, two at Hanumangarh, one at Kesrisinghpur, one at Karanpur and one at Suratgarh. There are also a large number of registered medical practitioners and chemists in the district. It shows that the Allopathic mode of treatment is becoming popular among the people who place more reliance on the modern system of medicine and surgery.

Homeopathic Practitioners

There are about sixty homeopathic practitioners in the district. A registered association of the Homeopathic practitioners of the district is affiliated to all Rajasthan Homeopathic Association, Jaipur.

Indigenous system of medicine

In 1929–30, the erstwhile Bikaner State extended government patronage to the *Ayurvedic* system of medicine and a member of *Aushdhalayas* were established in the State. In January 1943, an *Ayurvedic* dispensary was opened at Muklawa, in Raisinghnagar tahsil, by the Ganganagar District Board. One aided *Ayurvedic* dispensary of the Board was opened at Daulatpura, tahsil Ganganagar, during the year 1946–47. In 1951, the number of *Ayurvedic Aushdhalayas* rose to 10. Of these six were being run by the State Government and four by the District Board, Ganganagar.

During the first Five Year Plan eight more *Aushdhalayas* were opened and in 1955–56 their number was 18. The number of *Aushdhalayas* considerably increased after the establishment of a separate *Ayurvedic* Department during the Second Five Year Plan, and thus in 1960–61, 37 *Aushdhalayas* were functioning in the district. The Third Plan period witnessed further increase in the number of these institutions and in 1965–66, there were as many as fifty-five[1] *Aushdhalayas* in the district. The work of these *Aushadhalayas* is supervised by the *Ayurvedic* Inspector stationed at Bikaner. The location, staff and class of these institutions has been given in the appendix I, at the end of the chapter.

The number of patients treated in the *Ayurvedic Aushdhalayas* of the district during the selected years in the last one decade has been given below[2] :

Year	Number of patients
1956	1,39,225
1961	3,72,387
1965	4,34,808

1. Provisional.
2. Source : Office of the Director, Ayurved, Rajasthan, Ajmer.

The *Ayurvedic* Department gives grant-in-aid to the following two *Aushdhalayas* which are managed by voluntary associations :

Name of the *Aushadhalaya*	Amount of the grant-in-aid in 1965–66
1. Gramothan Vidyapeeth Aushadhalaya, Sangaria	Rs. 725
2. Shri Vedic Dharmarth Aushdhalaya, Karanpur	Rs. 1,690

Summary of Medical Facilities

At the time of the Census of 1951, there were 63 registered Medical practitioners, 91 *Vaidyas*, 6 mid-wives, 7 compounders and 4 nurses in the district. The position regarding availability of medical facilities in the district is now very satisfactory. In 1961, the various categories of personnel engaged in the Health Services both public and private, are given as under[1] :

	Persons	Males	Females
1. Physicians and Surgeons, Allopathic	124	121	3
2. Physicians, *Ayurvedic*	372	369	3
3. Physicians, Homeopathic	11	9	2
4. Physicians, Others	7	7	-
5. Physiologists	34	34	-
6. Dentists	4	4	-
7. Physicians, Surgeons and Dentists not classified	22	22	-
8. Nurses	57	6	51
9. Mid-wives and Health Visitors	40	10	30
10. Nurses, Attendants and related workers	35	21	14
11. Pharmacists and Pharmaceutical Technicians	139	138	1
12. Vaccinators	11	11	-
13. Sanitation Technicians	8	8	-
14. Optometerists and Opticians	2	2	-
15. Medical and Health Technicians unclassified	27	25	2
Total	893	787	106

1. *Census of India, 1961, Rajasthan, District Census Handbook, Ganganagar District*, p. 149.

Thus, there is one medical man for about 1,000 persons. Medical institutions are well spread over the entire area of the district. Out of 39 Allopathic hospitals and dispensaries, 17 are in the villages and out of 55 *Ayurvedic Aushdhalayas*, 54 are located in the rural areas.

SANITATION

Sanitation, as an ingredient of public health, is especially important where people live in crowded localities. The primary function of the municipalities is the maintenance of proper sanitary conditions in the areas under their jurisdiction. The district has ten municipalities at Ganganagar, Raisinghnagar, Hanumangarh Town, Nohar, Bhadra, Karanpur, Suratgarh, Gajsinghpur, Sangaria and Anupgarh. These municipalities employ sanitary inspectors and special staff to keep the municipal areas reasonably free from dirt and disease. But one of their major problems is the absence of drainage system. During the rainy season the streets of these towns become pools of stagnant water and provide a breeding ground for flies and other noxious germs, thus exposing the local population to various health hazards.

Sanitary conditions are comparatively better in some of the rural areas which are sparsely populated. Village Panchayats have been made responsible for water supply and sanitation in their respective areas. To co-ordinate their activities a Sanitary Inspector is attached to each Panchayat Samiti. The Public Health Department of Rajasthan Government functions as an advisory body to these local institutions.

Drainage

As stated above there is no underground drainage system in the district. A scheme for providing drainage system at Ganganagar was prepared by the Chief Engineer, Health Department, Government of Rajasthan and it was estimated to cost about rupees twenty-two lakhs. But the scheme could not be implemented because of the paucity of funds. The Municipal Council, Ganganagar has, however, launched a Sewage Utilisation Scheme, in 1967 which would cost about rupees ten lakhs. Under this scheme the sullage water collected by the surface drain system will be utilised for the irrigation of agricultural land. Thus the scheme would yield an income of about rupees one lakh to the Council per year by the disposal of sullage water.

Water-Supply

Piped water-supply is available at Ganganagar, Raisinghnagar, Karanpur, Sangaria, Hanumangarh, Nohar, Bhadra, Makkasar and

Pandusar. Canal water is supplied to the waterworks at Ganganagar, Raisinghnagar, Karanpur and Sangaria. The water at these places is chlorinated and filtered and then supplied to the puplic. At Hanumangarh, Nohar, Bhadra, Makkasar and Pandusar the water supply is secured from the wells and water is not filtered but only chlorinated before being supplied to the public. The water-supply is restricted to eight hours in a day at Ganganagar and to six hours in a day at other places.

Protected water supply is not available in any town or village of the district, other than those stated above. The wells are very deep in the district and in most cases water is brackish and hence unfit for drinking purposes. In the canal colony area people have to depend on canal water for their daily requirements. It is stored in the *Diggis* or ponds and the usual method is to collect it from the pond or *Diggi* in a pitcher and allow it to stand for sometime so that the dust particles may settle down. As such sources (*Diggis*) or ponds are easily contaminated and this has resulted in a high incidence of water-borne diseases in the district. The situation is, however, improving as special attention is being paid to the execution of water supply schemes under the development programmes.

APPENDIX I

List of *Ayurvedic Aushdhalayas* (Provisional) in Gangangar district during 1965-66

S. No.	Place	Class	Staff			Class IV servants
			Vaidya	*Up-vaidya*	*Dai*	
1	2	3	4	5	6	7
1.	Rohidawali	C	1	—	—	1
2.	Ganeshgarh	C	1	1	—	1
3.	Mahiyanwali	C	1	1	—	1
4.	Tatarsar	C	1	1	—	1
5.	Daulatpura	C	1	1	—	1
6.	Ramsinghpura	C	1	1	—	1
7.	Peeli Banga	C	1	—	—	1
8.	Likhmisar	C	1	—	—	1
9.	Badopal	C	1	—	—	1
10.	Ridmalsar	C	1	1	—	1
11.	Bishanpura	C	1	—	—	1
12.	Dabla	C	1	1	—	1
13.	Muklawa	C	1	1	—	1
14.	Motasar khuni	C	1	1	—	1
15.	Ramgarh	C	1	—	—	1
16.	Dhandela	C	1	1	—	1
17.	Lalana	C	1	—	—	1
18.	Phephana	C	1	1	—	1
19.	Birkali	C	1	—	—	1
20.	Pallu	C	1	—	—	1
21.	Parilika	C	1	1	—	1
22.	Pandusar	C	1	1	—	1
23.	Gandheli	C	1	1	—	1
24.	Panditwali	C	1	1	—	1
25.	Uttradbas	C	1	—	—	1
26.	Chhani Bari	C	1	—	—	1
27.	Bhirani	C	1	1	—	1
28.	Sherda	C	1	1	—	1
29.	Anupshahr	C	1	—	—	1
30.	Dabri	C	1	—	—	1
31.	Ajitpura	C	1	—	—	1

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1	2	3	4	5	6	7
32.	Sahuwala	C	1	1	—	1
33.	Sadulshahr	C	1	—	—	1
34.	Dholipal	C	1	—	—	1
35.	Sherekan	C	1	—	—	1
36.	Pir Kamaria	C	1	1	—	1
37.	Pakka Sarnan	C	1	1	—	1
38.	Munda	C	1	1	—	1
39.	Manniwali	C	1	1	—	1
40.	Rojhri	C	1	—	—	1
41.	Kijachiya	C	1	1	—	1
42.	Masitwali	C	1	1	—	1
43.	Neethrana	C	1	1	—	1
44.	Shamgarh	C	1	1	—	1
45.	Jaitsar	C	1	1	—	1
46.	Krishanpura	C	1	1	—	1
47.	Thethar	C	1	1	—	1
48.	Ganganagar	C	1	1	—	1
49.	Naggi	C	1	1	—	1
50.	Jhansal	C	1	1	—	1
51.	Chak	C	1	1	—	1
52.	Mokalsar	C	1	1	—	1
53.	Ladhuwala	C	1	1	—	1
54.	Tamkot	C	1	—	—	1
55.	Lagarh Jattan	B	1	2	1	1

Source : Office of the Director of Ayurved, Rajasthan, Ajmer.

CHAPTER XVII

OTHER SOCIAL SERVICES

LABOUR WELFARE

The labourers form an important segment of the community and, promotion of their welfare, therefore, has always been a matter of prime concern to the State and the society. Before the beginning of the present century there was no such thing as industrial labour in the district, but as some industries grew, there has been corresponding increase of this type of labour.

In 1965, the number of industrial establishments in the district was 198, employing 6,664 persons. It must, however, be pointed out that the actual number of industrial units and labour employed by them would be much greater as the figures given above represent only those as were registered under the Indian Factories Act, 1948. Application of various labour laws such as, relating to minimum wages, maternity benefits, industrial disputes, workmen's compensation, insurance, provident fund etc. is confined to labourers working under the registered factories only. Even in these establishments, most of the employers, at best, provided the minimum amenities prescribed by law, and it is only in a few bigger units that the workers enjoy substantial facilities like bonus and medical attendance etc.

Thus, there is considerable scope for extending labour legislation to such establishments where it has not been enforced and for ensuring effective implementation of various provisions of labour laws in the establishments already covered by such legislation. A list of Central Acts, State Acts and Rules that are applicable in the district is given in the Appendix I.

One significant event of the post-Independence era in the district is the abolition of the *Begar* system. The working-classes are gradually becoming conscious of their rights and the system of forced labour has become a thing of the past.

State Labour Welfare Activities

The growth of industrial units in the district has brought in its wake various problems of labour in the industrial field. This has necessitated adoption of various measures needed for the promotion of their welfare and improvement in working conditions. The State sponsored labour welfare activities in the district are looked after by one Labour Inspector, who is under the administrative supervision of the Labour Officer with headquarters at Bikaner. Some of the important steps taken by the Government for safeguarding the interests of labour and promoting their welfare have already been dealt with in Chapter V. Only certain other measures not covered in the earlier section are discussed here.

EMPLOYEES' STATE INSURANCE SCHEME—The Employees' State Insurance Scheme was introduced in the district in March, 1959. Under the Employees' State Insurance Act (1948), an insured employee is entitled to five kinds of benefits, viz., medical benefit, sickness benefit, maternity benefit, disablement benefit and dependents' benefit. Of these only the medical benefit is rendered in the form of actual treatment and free distribution of medicines while others assume the form of cash payment. The number of persons covered by the scheme on 31st March, 1967 was 2150. As factories employing 20 persons or more and using power alone come under the purview of the Employees' State Insurance Act, the employees of such establishments only are covered under the scheme.

There is an Employees' State Insurance Dispensary at Ganganagar. Treatment in the Dispensary is primarily meant for the out-door patients but there is also a provision for domiciliary medical advice and treatment. In order to meet the needs of those requiring hospitalisation, beds are provided in the General Hospital, Ganganagar. The services of specialists in eye, ear, nose and throat, Tuberculosis, venereal diseases etc., are also made available to insured persons in the district.

INDUSTRIAL HOUSING SCHEME—A labour colony having 250 residential quarters has been constructed at Ganganagar for the workers under the Industrial Housing Scheme. The two important mills at Ganganagar i. e., the Sadul Textile Mills and the Ganganagar Sugar Mills have also provided residential quarters to their employees.

LABOUR WELFARE CENTRE—There is one Labour Welfare Centre and one Sub-Centre, which are run by the State Government at

Ganganagar. According to the Labour Department's classification the Ganganagar Centre is categorised as 'A' Type Centre in accordance with the standard of facilities available there. The Centre is situated in the Labour Colony, while the Sub-Centre is situated near the Ganganagar Sugar Mills Ltd.

These centres provide facilities for recreation, child welfare, adult education, gymnastics, wrestling pits, handicrafts training, indoor and out-door games, first aid, music classes, reading rooms and libraries. A 16 M.M. sound projector is also available with the Labour Department for the exhibition of recreational and educational films. Free milk is supplied to all children and expectant mothers.

Tailoring, lace making, knitting and embroidery classes are run for working-class women and their family members so that they may supplement their income. Sewing machines and material-to-learn is available free of cost and garments prepared by the trainees are offered to them at cost price but when sold to others, trainees get suitable labour charges.

The Centre had a membership of 789 men, 324 women and 429 children at the end of 1965-66, while the average daily attendance was 100—55 men, 23 women and 22 children. The Sub-Centre had in all 320 members, in the same year.

The following statement shows the daily average attendance in the activities of these centres during the year 1965-66.

S. No.	Item	Labour Colony Centre	Sub-Centre
1	2	3	4
1.	Average attendance at the Adult Education Centre	5	2
2.	Average attendance at the Child Education Classes	9	—
3.	Average attendance at the Music classes	9	—

1	2	3	4
4.	Average attendance at the Dancing classes	13	—
5.	Average attendance at the Sewing classes	—	—
6.	Members of the Library	132	80
7.	Number of books issued by the Library	935	176
8.	Attendance at the out-door games	—	21

The staff at the Labour Welfare Centre, Ganganagar consists of Labour Inspector (Welfare), games supervisor, lady supervisor for the child and adult education for ladies, lady tailor and part-time music teacher.

PROHIBITION

Ganganagar is not a dry district. Hence, apart from drinking in public, there is no restriction on the consumption of liquor. In 1965-66 there were 18 shops in the district selling Indian made foreign liquor and spirits and a total of 157 shops (28 main shops and 129 sub-shops) which sell country liquor. The possession and use of *Ganja* and *Charas* is strictly prohibited while opium is supplied to the addicts through ration cards on medical grounds subject to a quarterly reduction in their quota. Bhang is the only intoxicant that is freely consumed. There were nine opium depots till 1964-65, but now opium is sold by the District Treasury, sub-Treasuries and the Ganganagar Distillery. The table in appendix II shows the extent of the consumption of intoxicants in the district from 1961-62 to 1965-66.

The consumption of the country liquor has shown a marked increase during the last five years, while the consumption of Indian made foreign liquor has considerably dwindled. This is probably due to the reason that people in rural areas, who consume country liquor, are taking

more and more to drinking, while the people of urban areas who mostly consume Indian made foreign liquor, are gradually giving it up mainly because of the rising cost of living. The agricultural classes, on the other hand, have been economically benefited by the steep rise in the prices of the agricultural commodities in recent years. The surplus, in some cases, has been squandered on liquor rather than on other good things of life which would have raised their standard of living. The consumption of foreign liquor has, obviously, been reduced due to import restrictions. The consumption of opium too has shown a downward trend because of the restrictions on its sale, while the consumption of *Bhang* has remained, more or less, stationary. The use of *Ganja* and *Charas* is prohibited These figures about the consumption of the intoxicants do not tell the full tale as illicit distillation has been on the increase during these years and smuggling and boot-legging fulfils the needs of opium and liquor addicts.

DISTILLERY—The only distillery in the district is located at Ganganagar and is known as Ganganagar Sugar Mills and Distillery. It is a Rajasthan Government undertaking and was established in December 1 53. It produced, 15,96,516.06 L. P. litres of country liquor and Indian made foreign liquor in 1965-66; Orange, Malta, Plain, Rose, Ginger and Kesar Kasturi are well-known brands in country liquor produced by this distillery and Whisky, Rum, Brandy and Gin in Indian made foreign liquor.

ADVANCEMENT OF BACKWARD CLASSES

The Social Welfare Department attends to the amelioration work of the backward classes. The total population of the Scheduled Castes and Scheduled Tribes in the district, is 2,97,368 and 2,208 respectively.

The following castes among the Scheduled Castes, and Scheduled Tribes are residing in the district[1] :

S. No.	Names of Scheduled Castes	Persons	Males	Females
	TOTAL	2,97,368	1,60,567	1,36,801
1.	Adi Dharmi	1,222	696	526
2.	Aheri	91	57	34

1. *Census of India*, 1961, *Vol. XIV, Rajasthan, Part V-A, Special Tables for Scheduled Castes and Scheduled Tribes*, pp. 154, 159.

1	2	3	4	5
3.	Badi	27	6	21
4.	Bagri	12	6	6
5.	Bajigar	2,877	1,473	1,404
6.	Balai	224	120	104
7.	Bargi, Vargi or Birgi	64	48	16
8.	Bawaria	38,493	20,065	18,428
9.	Bedia or Beria	35	9	26
10.	Bhand	916	461	455
11.	Bhangi	2,534	1,176	1,358
12.	Bidakia	55	20	35
13.	Chamar, Bhambhi, Jatav, Jatia, Mochi, Raidas, Raigar or Ramdasia	54,650	29,448	25,202
14.	Chura	10,796	4,719	6,077
15.	Dabgar	163	107	56
16.	Dhankia	13,287	7,533	5,854
17.	Dheda	331	242	89
18.	Dome	445	238	217
19.	Garo, Garura or Gurda	149	77	72
20.	Gavaria	22	12	10
21.	Jingar	91	42	49
22.	Kalbelia	301	201	100
23.	Kamad or Kamadia	331	183	148
24.	Kanjar	71	40	31
25.	Kapadia Sansi	741	348	393
26.	Khatik	757	479	278
27.	Koli or Kori	46	40	6
28.	Kooch Band	94	52	42
29.	Koria	25	17	8
30.	Madari or Bazigar	55	25	30
31.	Majhabi	39,561	23,284	16,277
32.	Megh or Mehgwal	40,494	22,021	18,473

1	2	3	4	5
33.	Mehar	220	123	97
34.	Mehtar	4,955	2,431	2,524
35.	Nut	172	87	85
36.	Pasi	86	68	18
37.	Rawal	40	20	20
38.	Salvi	7	7	—
39.	Sansi	2,346	1,234	1,112
40.	Santia	22	5	17
41.	Sarbhangi	219	98	121
42.	Sargara	11	5	6
43.	Singiwala	7	5	2
44.	Theri or Nayak	62,210	33,054	29,156
45.	Tirgar	39	26	13
46.	Valmiki	6,104	3,306	2,798
47.	Unclassified	11,860	6,853	5,007

S. No.	Names of Scheduled Tribes[1]	Persons	Males	Females
	TOTAL	2,208	1,242	966
1.	Bhil	30	12	18
2.	Damor, Damaria	1,049	564	485
3.	Garasia (excluding Rajput Garasia)	2	2	—
4.	Mina	459	299	160
5.	Unclassified	668	365	303

WELFARE ACTIVITIES

The office of the Social Welfare Officer in the district was created in 1960. The staff consists of one Social Welfare Officer, one Welfare

1. *Census of India, 1961, Vol. XIV, Rajasthan, Part V-A, Special Tables for Scheduled Castes and Scheduled Tribes*, p. 274.

Inspector, one uper division clerk one accounts clerk, one lower division clerk, and two class IV servants. The department is responsible for organising such activities and initiating such measures as are calculated to achieve rapid economic, social and cultural progress of the backward communities of the district. The uplift of these classes is sought to be achieved in many ways. A Sanskar Kendra is being run by the Department to impart social education and vocational training. Social education centres have been opened to provide facilities for adult education and knowledge of the civic affairs. Three hostels for students namely, (1) Scheduled Castes Hostel, Ganganagar (2) Denotified Tribes Hostel, Karanpur and (3) Denotified Tribes Hostel, Raisinghnagar have been opened. Free board and lodging is provided to the inmates; books, clothing, medical treatment etc. are made available to them at cost price and library, reading room and facilities for games etc. are also provided. One Women Shelter Home is being run by the Department and its inmates get the facilities of free board and lodging.

HOUSING—A housing colony for the Scheduled Castes consisting of 150 houses has been constructed at Chak No. 41 P. S. in Raisinghnagar tahsil at a cost of Rs. 91,700. A grant of Rs. 6,000 has also been given by the Government for the construction of a *Panchayat Ghar* and a school building in the colony. Another such colony for fifteen Scheduled Caste households has been constructed at Bijaynagar at a cost of Rs. 11,250.

LIGHTING AND DRINKING WATER—At Bijaynagar, a *Diggi* (water storage tank) has been constructed at a cost of Rs. 5000 to provide drinking water facilities. For providing lighting and water facilities in the Scheduled Caste colonies, grants were given to the Municipal Boards of Ganganagar, Sangaria, Suratgarh, Bhadra and Raisinghnagar and to the Panchayats of Chak 24 G. B., Bijaynagar, Jaitsar, Peeli Banga, Sujawalpur, Pir Kamaria, Jandawali, Lakhanwas and Makkasar.

Grants-in-aid are also given to the different Panchayat Samitis of the district every year for digging of wells, establishment of cottage industries, grant of scholarships, construction of housing colonies, loans for the purchase of agricultural implements and bullocks, and drinking water and lighting facilities.

The table at Appendix III shows the grants-in-aid given to various institutions and other expenditure incurred by the Department for promoting the welfare of Scheduled Castes, denotified tribes and other backward classes.

Among the voluntary associations which are engaged in the uplift of the backward classes, the Gramothan Vidyapeeth, Sangaria occupies a pre-eminent place. It has opened a hostel for the students of Scheduled Castes at Sangaria, providing accommodation to 40 students. The State Government gave grant-in-aid to the institution at the rate of Rs. 25 per student till 1965 but thereafter it has been receiving 90 per cent of its total expenditure in the form of grant-in-aid.

Besides, the Rajasthan Samaj Kalyan Sangh is also running one Welfare Extension Project at Sangaria. The Project was originally sponsored by Rajasthan State Social Welfare Board but since 1961, it has been handed over to the Sangaria branch of Rajasthan Samaj Kalyan Sangh which receives 75 per cent of its expenditure as grant-in-aid from the Board. Five social welfare centres have been opened under the project in the villages of Nukera, Dholipal, Morjand Sikhan, Deengarh and Haripura. These centres provide craft training to the villagers. *Bal Baris* have been set up at these centres to impart Montessory type af education to the children. Villagers are also given instruction in social and personal hygiene.

Other voluntary associations set up to work for the betterment of the backward classes in the district are Dalit Sewak Sangh, Scheduled Castes Federation, Dalit Varg Sangh, Nayak Sudhar Sabha and Bhil Nayak Sewak Mandal.

Members of the Scheduled Castes and Scheduled Tribes also receive various other facilities from Government and non-Government agencies. For instance, one-third of the Government land is reserved for allotment to the persons belonging to these communities. They get free studentships and scholarships for their primary, secondary and university education. The Panchayat Samitis receive grants-in-aid from the Social Welfare Department for awarding scholarships to the children of Scheduled Castes and Scheduled Tribes in the primary schools. In the secondary schools these scholarships are awarded by the Directorate of Primary and Secondary Education, Rajasthan, from the funds made available by the Social Welfare Depatment. In the colleges, every student belonging to such Castes and Tribes receives Rs. 40 per month as post-matric scholarship while in the technical schools each of them is entitled to a merit-cum-need scholarship alongwith the usual stipend. Thus, a process for the amelioration of the down-trodden and the backward classes has already been set into motion in the district. These classes are now provided with such educational and social amenities as were hitherto denied to them and which are sure to result in their all-round uplift.

OLD AGE PENSION—The attention has also been paid to improve the conditions of other needy sections of the society. The State Government introduced old age pension scheme for the destitute and the old persons in the district in September, 1965. In January, 1967 there were ten such persons who received pension under this scheme.

CHARITABLE ENDOWMENTS

The State Social Welfare Board gives financial aid to the following institutions for providing better educational facilities to the children:

1. Adarsh Bal Mandir, Karanpur, 2. Jawahar Lal Nehru Bal Mandir, Nohar, 3. Jawahar Bal Mandir, Ganganagar, 4. Bal Vikas Vidyalaya Samiti, Hanumangarh, 5. Pursharthi Anand Vidyalaya, Ganganagar, 6. Bal Sansar Kanya Vidyalaya, Ganganagar, 7. Dadhimathi Bal Niketan, Ganganagar, 8. Adarsh Siksha Sadan, Ganganagar, 9. Baby Happy School, Ganganagar, 10. Sanatan Dharm Sarva Hitkari Samiti, Balbari, Karanpur, 11. Bal Bharatiya Gramothan Vidyapeeth, Sangaria.

Free milk is supplied to the children in various schools of the district.

APPENDIX I

Following is the list of Central Acts, State Acts and Rules that are applicable in the district;

A. Central Acts

1. Industrial Disputes Act, 1947
2. Industrial Employment (Standing Orders) Act, 1946
3. Indian Trade Unions Act, 1926
4. Minimum Wages Act, 1948
5. Indian Factories Act, 1948
6. Indian Boilers Act, 1923
7. Workmen's Compensation Act, 1923
8. Employees' State Insurance Act, 1948
9. Payment of Wages Act, 1936
10. Working Journalists (Conditions of Service & Misc. Provisions) Act, 1955
11. Employment of Children Act, 1936
12. Employees' Provident Fund Act, 1952
13. Employers' Liability Act, 1938
14. Children (Pledging of Labour) Act, 1933
15. Motor Transport Workers Act, 1961

B. Rajasthan State Acts

1. Industrial Disputes (Rajasthan Amendment) Act, 1958
2. Rajasthan Shops & Commercial Establishments Act, 1958
3. Rajasthan Maternity Benefit Act, 1953

C. Rajasthan State Rules etc.

1. Rajasthan Factories Rules, 1951
2. Rajasthan Workmen's Compensation (Unclaimed Deposits) Rules, 1959
3. Rajasthan Minimum Wages Rules, 1959
4. Rajasthan Boilers Rules, 1951

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5. Rajasthan Industrial Disputes Rules, 1958
6. Rajasthan Payment of Wages Rules, 1951
7. Rajasthan Shops & Commercial Establishments Rules, 1958
8. Rajasthan Trade Union Regulations, 1959
9. Rajasthan Employees' Insurance Court Rules, 1955
10. Rajasthan Maternity Benefit Rules, 1955
11. Rajasthan Economiser Rules, 1954
12. Rajasthan Motor Transport Workers Rules, 1962
13. The Welfare Officers (Recruitment and Conditions of Service) Rules, 1952
14. Rajasthan Boilers' Attendance Rules, 1951
15. Rajasthan Workmen's Compensation (Cost and Fee) Rules, 1955

APPENDIX II

Consumption of Intoxicants in the District

Year	Country Spirit	Opium	Bhang	Imported spirit & wine	Indian made foreign spirit	Indian made beer	Lance poppy heads
	Litres	Kg.	Kg.	Litres	Litres	Litres	Kg.
1961–62	5,73,889.00	104.432	1,441.565	1,000.00	1,20,773.00	48,944.00	1,81,558
1962–63	9,76,596.00	79.890	979.510	408.78	77,769.62	48,005.29	1,89,457
1963–64	11,96,673.00	69.380	1,355.000	896.00	44,210.36	65,919.25	2,30,957
1964–65	14,97,950.50	64.250	1,280.000	256.25	41,309.82	35,918.20	3,20,077
1965–66	16,32,863.25	63.220	1,186.000	439.75	37,964.11	39,994.68	3,26,872

Source : Office of the District Excise Officer, Ganaganagar (figures are provisional).

APPENDIX III

Grant-in-aid for Social Welfare Activities of Backward Classes

(Rs.)

Scheme	1959–60	1960–61	1961–62	1962–63	1963–64	1964–65	1965–66
A—Scheduled Castes							
1. Housing	11,250	—	—	—	—	—	—
2. Grant-in-aid to Voluntary Associations	7,018	4,509	9,074	8,566	7,733	6,883	7,746
3. Training and production Centre	6,200	4,572	800	—	—	—	—
4. *Sanskar* Kendras	2,600	1,875	2,611	2,247	526	731	2,451
5. Scholarships	10,042	7,035	—	—	—	—	—
6. Social Education Centres	800	530	700	768	371	180	364
7. Hostels	22,012	14,055	21,591	18,398	26,209	28,270	39,179
8. Grant-in-aid to the Municipalities	5,000	—	—	18,700	17,850	—	—
9. Relief to the flood affected	3,687	—	—	—	—	—	—
10. Wells for drinking water	5,000	—	—	—	—	—	—
B—Denotified Tribes							
1. Hostels	—	8,677	11,020	11,631	13,730	26,154	35,748
2. Scholarships	1,321	616	—	—	—	—	—
3. Social Education Centres	—	30	527	364	122	—	—
C—Other Backward Classes							
1. Scholarships	10,599	—	—	—	—	—	—
2. Women Shelter Homes	2,500	3,090	1,647	—	—	—	—

Source : Office of the Social Welfare officer, District Ganganagar.

CHAPTER XVIII

PUBLIC LIFE AND VOLUNTARY SOCIAL SERVICE ORGANISATIONS

REPRESENTATION OF THE DISTRICT IN THE STATE AND THE UNION LEGISLATURE

Lok Sabha (House of the People), 1952

In the first General Elections 1952, Ganganagar was represented in the *Lok Sabha* (House of the People) by two members elected by the double member Ganganagar-Jhunjhunun Parliamentary Constituency of which one seat was reserved for a candidate of Scheduled Castes. This constituency comprised of the whole of Ganganagar and Jhunjhunun districts, Churu, Rajgarh and Tara Nagar tahsils of Churu district, a few villages of Neem-Ka-Thana tahsil of Sikar district, Kotputli tahsil and Paota sub-tahsil (Bairath tahsil) of the Jaipur district. Total votes in the constituency numbered 15,17,720 of which valid votes cast were 6,62,222 or 44.48 per cent. Both the seats were annexed by the Congress candidates. The number of candidates who filed their nominations was 13 but only ten of them contested the election. Details of the votes polled by the different political parties are given below[1]:

S. No.	Political Party	No. of votes polled	Percentage of votes polled
1.	Congress	2,97,858	45.1
2.	Krishak Majdoor Praja Party	31,443	4.9
3.	Ram Rajya Parishad	1,36,736	20.4
4.	Krishikar Lok Party	41,004	6.0
5.	Socialist	75,073	11.2
6.	Scheduled Castes Federation	44,171	6.8
7.	Independents	35,937	5.6

1. *Report on the First General Elections in India*, 1951-52, Vol. II (Statistical).

Lok Sabha, 1957

In the second General Elections 1957 also, Ganganagar district was represented in the *Lok Sabha* by two members elected by the double member Parliamentary Constituency of Bikaner. The constituency comprised Ganganagar, Bikaner and Churu districts excluding a major portion of Sujangarh tahsil. One parliamentary seat from this constituency was reserved for the Scheduled Castes. The total number of electorates in the constituency was 8,05,673 and thus the total number of votes was 16,11,346 of which 6,85,550 or 42.5 per cent valid votes were polled. The number of candidates who filed their nominations was 11 but only six of them ultimately contested the elections, the rest having withdrawn their candidature. Details of the votes polled by each contesting political party and Independent candidates are shown below:

S. No.	Name of the political party	No. of valid votes polled	Percentage of votes polled
1.	Congress	2,70,596	39.5
2.	Independents	3,68,400	53.7
3.	Communist	46,554	6.8

The general seat was won by an Independent candidate while the reserved seat for Scheduled Castes again went to a Congress candidate.

Lok Sabha, 1962

In the third General Elections held in the year 1962, one member elected by single member Parliamentary Constituency of Ganganagar represented the district in the *Lok Sabha*. Formerly, the district was bracketed with Jhunjhunun and Bikaner for a double member Parliamentary Constituency, but this time it was converted into a single member constituency, known as Ganganagar Parliamentary Constituency, comprising of eight assembly constituencies viz., Raisinghnagar, Karanpur, Ganganagar, Suratgarh, Hanumangarh, Rawatsar and Nohar i.e., the whole of Ganganagar district and a part of Churu district. The total number of voters in the constituency was 5,74,159 of which valid votes cast were 3,37,914 i.e., 57.32 per cent. The number of contesting candidates was six. The seat was won by a candidate belonging to the Congress party. Necessary details of contest along with votes polled are as follows:

S. No.	Political party	No. of valid votes polled	Percentage of votes
1.	Congress	1,34,133	39.7
2.	Swatantra	19,735	5.9
3.	Socialist	19,542	5.8
4.	Independents	1,64,504	48.6

Lok Sabha, 1967

In the fourth General Elections held in the year 1967, one member elected through the Parliamentary Constituency (reserved for Scheduled Castes) of Ganganagar, represented the district in the *Lok Sabha*. The extent of area of the Parliamentary Constituency comprised nine assembly constituencies viz., Bhadra, Nohar, Sangaria, Hanumangarh, Ganganagar, Kesrisinghpur, Karanpur, Raisinghnagar and Suratgarh. Out of a total electorate of 5,43,522, valid votes cast were 3,17,791, or 56.68 per cent. Eight candidates contested the election. The seat was won by the nominee of the Indian National Congress, who secured 1,17,966 valid votes or 37.12 per cent. The remaining contestants, one from the Swatantra Party, one from the Communist Party of India and five Independent candidates polled 61,588 or 19.38 per cent, 26,986 or 8.49 per cent and 1,11,251 or 35.01 per cent votes respectively.

A careful examination of the results of last four General Elections to the *Lok Sabha* reveals that the Congress Party has been popular in the district in capturing *Lok Sabha* seats in all the General Elections except once, when an independent member, the former ruler of erstwhile Bikaner State, represented Ganganagar along with a Congressite. Other parties inspite of their best efforts have not cut much ice with the electorate. A few political parties which had sprung up at the time of first General Elections in 1952, and contested in this district, went into oblivion during the succeeding elections. The Swatantra Party contested elections during the Third and Fourth General Elections while the Socialist Party twice contested unsuccessfully during the period. The Communist Party of India contested a seat only during the Second and Fourth General Elections but failed to make a mark.

No bye-elections were held for *Lok Sabha* in Ganganagar district. The following table shows the number of seats contested by various political parties and Independents in the four General Elections.

Year of election	No. of seats	Contesting Parties	Candidates Contested	Candidates Elected	Percentage of votes polled
1	2	3	4	5	6
1952	2	Congress	2	2	45.1
		Krishak Majdoor Praja Party	1	–	4.9
		Ram Rajya Parishad	2	–	20.4
		Krishikar Lok Party	1	–	6.0
		Socialist	1	–	11.2
		Scheduled Caste Federation	1	–	6.8
		Independents	2	–	5.6
1957	2	Congress	2	1	39.5
		Communist	1	–	6.8
		Independents	3	1	53.7
1962	1	Congress	1	1	39.7
		Swatantra	1	–	5.9
		Socialist	1	–	5.8
		Independents	3	–	48.6
1967	1	Congress	1	1	37.12
		Swatantra Party	1	–	19.38
		Communist Party of India	1	–	8.49
		Independents	5	–	35.01

Vidhan Sabha (Legislative Assembly), 1952

In the 1952 Rajasthan State Legislative Assembly Elections, Ganganagar district had five constituencies, viz., Bhadra, Nohar, Sadulgarh Raisinghnagar, Karanpur and Ganganagar. Four constituencies were single member and one viz., Raisinghnagar–Karanpur was double member, with one seat reserved for Scheduled Castes.

BHADRA—Bhadra Constituency comprised the area of Bhadra tahsil and a few villages of Nohar tahsil with a total electorate of 46,036. The number of candidates who filed their nomination forms was five and

four of them contested the election. Total number of valid votes polled in the election was 23,653 or 51.3 percent of the total votes in the constituency. The seat was annexed by a nominee of the Congress Party who secured a total of 13,363 votes forming 56.5 per cent of total valid votes polled. The other three candidates secured 10,290 or 43.5 per cent votes.

NOHAR—Nohar Constituency having 44,601 total electorate included the entire areas of Suratgarh and Nohar tahsils excluding a few villages of Nohar which were included in Bhadra Constituency. Five candidates filed their nomination forms of whom only three contested the election, the rest having retired. The number of valid votes polled in the constituency was 22,280 which formed 49.9 per cent of the total votes. The Congress candidate who secured a total of 14,610 votes or 65.6 per cent was declared elected. The remaining two Independent candidates secured 1,739 or 7.8 per cent and 5,231 or 26.6 per cent votes respectively.

RAISINGHNAGAR-KARANPUR—This constituency comprised the area of Raisinghnagar, Karanpur, Anupgarh and Padampur tahsils and a few villages of Ganganagar tahsil. This double member constituency had 98,969 electors, and 1,97,938 votes. out of 28 candidates who filed their nominations, 15 candidates contested the elections. The number of valid votes polled was 92,944 or 46.9 per cent. Details of the votes polled are given below :

S.No.	Party affiliation	No. of valid votes polled	Percentage of votes polled
1.	Congress	37,992	40.8
2.	Kisan Janta Samyukta Party	3,291	3.6
3.	Socialist	5,567	6.0
4.	Ram Rajya Parishad	2,591	2.8
5.	Scheduled Caste Federation	7,280	7.8
6.	Independents	36,223	39.0

Both the seats were won by the nominees of the Congress Party.

SADULGARH—Sadulgarh Constituency comprised the entire area of Sadulgarh tahsil only. This was a single-member constituency with an electorate of 47,956. Eleven candidates filed nominations but

only three contested the elections. The number of valid votes polled was 29,210 or 60.9 per cent of total votes in the area. This seat was won by the congress candidate who secured 16,456 votes i.e. 56.3 per cent of total valid votes polled in the constituency. The remaining two Independent candidates secured 12,754 or 43.7 per cent votes.

GANGANAGAR—This constituency included the entire area under the jurisdiction of Ganganagar tahsil excluding those villages included in Raisinghnagar-Karanpur Constituency. This constituency was a single-member one with an electorate of 47,913. The number of valid votes polled was 29,357 or 61.5 per cent. Total number of candidates who filed nominations was 11 but only four contested the seat which was captured by a Congress candidate who polled 17,215 votes or 58.6 per cent of total valid votes polled. His closest rival was an Independent, who secured 9,880 votes or 33.7 per cent. The other two candidates belonging to the Ram Rajya Parishad and the Jan Sangh secured 907 or 3.1 per cent and 1,355 or 4.6 per cent votes respectively.

Vidhan Sabha, 1957

In the 1957 State Assembly Elections, the district had five single member constituencies. viz., Raisinghnagar, Karnpur, Ganganagar, Suratgarh, Hanumangarh and one double member constituency, namely Nohar in which one seat was kept reserved for Scheduled Caste candidate.

RAISINGHNAGAR—Raisinghnagar Constituency, comprised the areas coverd by Raisinghnagar, Anupgarh tahsils and a few villages of Padampur tahsil with the total electorate numbering 64,112. Although 14 candidates filed their nominations, yet as the thirteen of them had withdrawn from the contest, the seat was captured by the Congress Party whose candidate was returned unopposed. This was the only uncontested election in the district during the two General Elections of 1952 and 1957.

KARANPUR—The Karanpur Assembly constituency comprised the areas covered by Karanpur and Padampur tahsils except villages included in Raisinghnagar Constituency. Out of the total electorate of 53,896 the number of valid votes polled was 32,028 or 59.4 per cent of total votes. In all, 22 candidates filed their nominations but only six contested the elections. The Congress candidate won the election and polled 15,394 or 48.0 per cent votes. The remaining five candidates, four

Independents and one nominee of the Jan Sangh polled 13,648 or 427. per cent and 2,986 or 9.3 per cent votes respectively.

GANGANAGAR—Ganganagar Constituency comprised the entire area covered by Ganganagar tahsil excluding a few villages. The total electorate was 52,773. As many as 20 filed their nominations for the contest but only five contested the seat and the remaining withdrew. Total number of valid votes polled was 28,355 (53.7 per cent). The Congress nominee won the election and secured 15,649 or 55.2 per cent votes. The defeated candidates who contested as Independents polled 12,706 or 44.8 per cent votes.

SURATGARH--Suratgarh Constituency having 54,353 voters, comprised the entire area of Suratgarh tahsil and a few villages of Ganganagar tahsil. Total number of valid votes polled was 31,079 or 57.2 per cent. Out of ten candidates who filed their nominations, only three contested. The Congress candidate, who polled 17,840 or 57.4 per cent votes was declared elected. The two losing contenders secured 13,239 or 42.6 per cent votes.

HANUMANGARH—Hanumngarh Constituncy comprising the area covered by Sadulgarh and Hanumangarh tahsils excluding a few villages of Hanumangarh tahsil had 54,051 electorates. Nomination forms were filed by nine candidates but only two contested the seat. The total number of valid votes polled in the constituency was 35,698 or 66.2 per cent. An Independent candidate captured the seat and secured 18,546 or 52.0 per cent votes. His only rival a Congress candidate secured 17,152 or 48.0 per cent votes.

NOHAR--The Assembly Constituency of Nohar which was a double member constituency comprised the area covered by the Nohar and Bhadra tahsils and a few villages of Sadulgarh and Hanumangarh tahsils. The total number of the electorate and votes was 101,569 and 2,03,138 respectively. Eleven candidates filed nomination forms but finally only five of them had contested the election. The total number of votes polled was 1,06,553 or 55.0 per cent. The general seat was won by an Independent candidate who polled 30,261 or 28.4 per cent votes while the reserved seat went to a Congress nominee who polled 20,981 or 19.7 per cent votes. The total number of votes polled by the remaining candidates was 55,311 or 51.9 percent.

All the seven seats of Ganganagar district were contested by 22 candidates, of whom 12 were Independent, seven from the Congress, one each from the Communist Party of India, the Jan Sangh and the Praja Socialist Party.

Vidhan Sabha, 1962

In the 1962 Rajasthan State Legislative Assembly Elections, the district had six general seats and one reserved for Scheduled Castes. All the seats were in single member constituencies, by name Raisinghnagar, Karanpur, Ganganagar, Suratgarh, Hanumangarh, Rawatsar (reserved) and Nohar.

RAISINGHNAGAR—In the Raisinghnagar Constituency, which comprised the areas covered by Raisinghnagar, Anupgarh and a few villages of Padampur tahsil, the total electorate was 92,809 and valid votes polled in the area were 53,860. This seat was contested by four candidates. A nominee of the Communist Party of India who secured 30,714 or 57·0 per cent votes was declared elected. The remaining three candidates polled 23,146 or 43.0 per cent votes.

KARANPUR—The Karanpur Constituency covered entire area under Karanpur and Padampur tahsils, except a few villages of Padampur tahsil. The total electorate was 66,502 and valid votes polled were 43,318. There were four contestants for the seat and the highest number of votes was secured by an Independent candidate who polled 21,571 or 49.8 per cent valid votes. The other rivals, two Independent candidates and one Congress candidate polled 2,302 or 5.3 per cent and 19,445 or 44.9 per cent votes respectively.

GANGANAGAR—Ganganagar Constituency comprised the area covered by the Ganganagar tahsil except a few villages. The total electorate in the constituency was 65,187. The number of voters who exercised their right was 44,386 or 68.09 per cent of which valid votes counted only 43,054. This seat was contested by three candidates, one Independent, one Congressite and one Jan Sangh candidate. They polled 25,840 or 60.0 per cent, 14,396 or 33.4 per cent and 2,818 or 6.6 per cent votes respectively. The seat was captured by an Independent candidate.

SURATGARH—The Suratgarh Constituency extended over Suratgarh tahsil and some villages of Ganganagar tahsil. In a total of 76,023 electorate, the number of valid votes polled was 43,856 or 57.7 per cent. A Congress candidate won the seat with 21,497 or 49.0 per cent votes. His nearest rival, an Independent, missed it by a narrow margin, securing 21,349 or 48.7 per cent votes. The third candidate, an Independent, secured only 1,010 or 2.3 per cent votes.

HANUMANGARH—The Hanumangarh Constituency comprised the area covered by the Hanumangarh tahsil, except a few villages which were not included in the area. The total electorate was 84,109 out of which 51,003 valid votes or 60.6 per cent were polled. There were three contestants for the seat, which was won by a nominee of the Communist Party of India by securing 31,501 or 61.8 per cent votes. The votes secured by other candidates numbered 19,502 or 38.2 per cent.

RAWATSAR—The single member Constituency Rawatsar, which was reserved for the Scheduled Castes, comprised the areas covered by Nohar tahsil (excluding Nohar town and a few villages) and a few villages of Hanumangarh tahsil. Out of the total electorate of 65,366 a total of 31,629 votes were polled. An Independent candidate won the seat by securing 14,328 or 45.3 per cent votes. The other candidates, who contested the election, polled 17,301 or 54.7 per cent votes.

NOHAR—In the Nohar Constituency, which comprised the area covered by Bhadra tahsil, Nohar town and a few villages in Nohar tahsil, the total electorate was 63,668. 46,355 valid votes were cast in the election. There were four contestants in the field. This seat was captured by an Independent who polled 24,823 or 53.5 per cent votes. His closest rival from the Congress Party secured 19,169 or 41.4 per cent votes. The other two candidates polled 2,363 or 5.1 per cent votes.

Vidhan Sabha, 1967

In the fourth General Elections, 1967 Ganganagar district was represented by nine single member assembly constituencies, comprising the entire area of the district, barring a few minor territorial adjustments with the neighbouring district of Bikaner. Of the total assembly constituencies allotted to the district, three were reserved for candidates belonging to Scheduled Castes. In all 45 candidates-Congress 9; Jan Sangh 2; Samyukta Socialist Party 4; Swatantra Party 6; Communist Party of India 1; Communist Party Marxists 3 and independents 20 contested the elections. Seven seats went to the Congress, one to the Samyukta Socialist Party and one to the Swatantra Party.

BHADRA—The Bhadra Constituency had a total electorate of 77,606 and the total number of valid votes polled was 53,752 or 68.38 per cent. The seat was contested by three candidates and won by a Congress Party candidate with 23,062 or 42.90 per cent votes. The remaining two candidates secured 30,690 or 57.09 per cent votes.

NOHAR—The Nohar Constituency had a total electorate of 78,549 and the total number of valid votes polled was 47.638 or 59.01 per cent. The seat was contested by five candidates, and won by a nominee of the Swatantra Party with 23,341 or 49.00 per cent votes. The remaining four candidates, one from the Congress Party. two Independents and one from the Samyukta Socialist Party polled 17,208 or 36.12 per cent, 4,406 or 9.24 per cent and 2,683 or 5.63 per cent votes respectively.

SANGARIA—In 1967, the total electorate of Sangaria (reserved) Constituency numbered 63,838, out of which 34,117 or 51.14 per cent valid votes were polled. Seven candidates contested the seat. The Congress Party candidate, who polled, 15,946 or 46.74 per cent votes won the seat. The other candidates, one from the Jan Sangh. one from the Communist Party (Marxist) and four Independents secured 6,506 or 19.07 per cent, 6,237 or 18.28 per cent and 5,428 or 15.90 per cent votes respectively.

HANUMANGARH—Hanumangarh Constituency had a total electorate of 80, 869 and the total number of valid votes polled was 50,745 or 61.70 per cent. The seat was contested by three candidates, and won by a Congress candidate with 20,764 or 40.92 per cent votes. The defeated candidates belonged to the Swatantra Party and the Communist Party (Marxist) who polled 15,085 or 29.73 per cent and 14,896 or 29.35 per cent votes respectively.

GANGANAGAR—The total number of electors on rolls at the time of the 1967 General Elections for the Ganganagar Constituency was 68,999. Six candidates, in all, contested the election. A total number of 42,143 or 57.93 per cent valid votes were cast. The nominee of the Samyukta Socialist Party who polled 20,267 or 49.26 per cent votes won the seat. The remaining five candidates, one from the Congress Party, one from the Jan Sangh and three Independents polled 11,641 or 28.29 per cent, 5,177 or 12.58 per cent and 3,058 or 9.87 per cent votes respectively.

KESARISIGHPUR—Kesarisinghpur, a reserved constituency for Scheduled Castes, had a total electorate of 51,962 and the total number of votes polled was 27,969 or 50.84 per cent. The seat was contested by eight candidates and won by a nominee of the Congress Party with 11,301 or 40.41 per cent votes. The remaining seven candidates, one from the Swatantra Party, one from the Communist Party (Marxist) and five Independent candidates polled 3,868 or 13.83 per cent, 2,839 or 10.15 per cent and 9,961 or 35.61 per cent votes respectively.

KARANPUR—Karanpur Constituency had a total electorate of 58,572 and the total number of votes polled was 38,665 or 64.52 per cent. The seat was contested by five candidates and won by a Congress Party candidate with 14,520 or 37.55 per cent votes. The other rivals in the contest, one from the Swatantra Party, one from the Samyukta Socialist Party and two Independents polled 9,009 or 23.30 per cent, 3,679 or 9.52 per cent and 11,457 or 29.63 per cent votes respectively.

RAISINGHNAGAR—The Raisinghnagar Constituency reserved for Scheduled Castes had a total electorate of 59,277 votes. The total number of valid votes polled was 29,239 or 47.5 per cent. There were six contestants for the seat which was won by a nominee of the Congress Party who secured 13,339 or 45.62 per cent votes. One Swatantra Party candidate and one candidate of the Communist Party of India polled 12,436 or 42.53 per cent and 1,931 or 6.60 per cent votes respectively. The remaining three Independent candidates polled 1,533 or 5.25 per cent votes.

SURATGARH—In the Suratgarh Constituency the total electorate was 81,456 and the valid votes cast were 49,882 or 60.08 per cent. The seat was contested by two candidates and won by the nominee of the Congress Party with 25,547 or 51.21 per cent votes. His only rival an Independent polled 24,335 or 48.79 per cent votes.

By-Elections (Vidhan Sabha)

FIRST BY-ELECTION—A by-election for the first time was held in the district on 24th August, 1958 in Hanumangarh Constituency as a result of declaration of election of an Independent candidate in 1957 as void by the Election Tribunal. Total electorate during the by-election was 61,990 of which valid votes polled were 38,774 or 62.6 per cent. The seat was contested by two candidates, one from the Congress Party and the other an Independent who polled 21,777 or 56.2 per cent and 16,997 or 43.8 per cent votes respectively. The Congress Party nominee was declared elected on 25th August, 1958.

SECOND BY-ELECTION—After 1962 General Elections, a vacancy again occurred on 16-12-1963 in Hanumangarh Constituency as a result of declaration of election of the Communist Party candidate as void by the Election Tribunal. This declaration was finally confirmed by the Supreme Court of India by the rejection of the appeal filed by the sitting candidate, which necessitated a by-election. In this by-election, the total electorate was 64,126. Valid votes polled were 51,166 or 60.8 per cent. There were two contestants, one from the Congress Party and the other an Independent candidate. The seat was captured by the Congress candidate who polled 27,370 or 53.5 per cent valid votes. His only rival, an Independent candidate, could secure 23,796 or 46.5 per cent votes. This seat was previously held by a Communist candidate.

THIRD BY-ELECTION—Another by-election was held in Nohar Constituency on 13-6-1965. This seat was declared vacant on account of death of the sitting Independent candidate. The total of valid votes polled was 39,265 or 60 per cent. The seat was contested by two candidates, one Independent and the other a nominee of the Congress Party. The Independent candidate captured the seat by securing 21,957 or 55.9 per cent votes. His rival from the Congress Party, secured 17,308 or 44.1 per cent votes.

Careful analysis of the results of the general elections and by-elections reveals a few interesting facts about the political parties and their hold in the district. The active and organised parties in the district are Congress, Communist Party, Swatantra Party and Samyukta Socialist Party. Next come Independent candidates who contested all the elections and captured upto 1962 a large number of assembly seats. Although all the assembly seats during the First General Elections went to the Congress, a definite and steady decline in the number of seats secured in succeeding general elections by the party is discernible. There was, however, again a marked swing in favour of the Congress in 1967 elections. Out of the seven seats in 1957 and 1962 elections, the Congress party captured five and one seat respectively. However, in 1967, the Congress Party improved its position in the district by capturing seven assembly seats out of a total of nine seats. Independents captured two and four seats in 1957 and 1962 elections respectively, but in 1967 they could not secure a single seat. The Communist Party had not put up any candidate in 1952 elections. It unsuccessfully contested 1957 elections by putting up only one candidate. But in 1962 elections it put up two successful candidates thereby marking an appreciable progress in their hold over the district. In 1967, during the Fourth General Elections it again failed to secure any seat. In 1967, the Swatantra Party and the Samyukta Socialist Party successfully contested the elections and secured one seat each. It can thus be safely assumed that among the organised parties only the Congress Party has sufficient influence and following in the district. The Samyukta Socialist Party and the Swatantra Party could secure only a seat each for the fiist time in the Fourth General Elections. The influential Independents were also able to cut a sizable slice in electoral success in the Second and Third General Elections. The following table shows the

number of seats contested by the different political parties in the four General Elections:

Election Year	Total No. of seats	Party	Contestants	Elected
1952	6	Congress	6	6
		Ram Rajya Parishad	3	
		Krishak Majdoor Praja Party	1	
		Jan Sangh	2	
		Independents	14	
		Kisan Janta Samyukta Party	1	
		Socialist	1	
		Scheduled Castes' Federation	1	
1957	7	Congress	7	5
		Jan Sangh	1	
		Communist	1	
		Praja Socialist Party	1	
		Independents	12	2
1962	7	Congress	7	1
		Jan Sangh	5	
		Communist Party	2	2
		Independents	13	4
1967	9	Congress	9	7
		Jan Sangh	2	
		Samyukta Socialist Party	4	1
		Swatantra Party	6	1
		Communist Party of India	1	
		Communist Party Marxist	3	
		Independents	20	

Literacy and Elections

According to the Census figures of the 1951, only 8.25 per cent of the population in the district were literate. However, the Census figures for the year 1961 show that 8.30 per cent more people have gained literacy in the past decade.

The following table shows an increase or decrease in polling in the four general elections :

	1952	1957	1962	1967
1. Valid votes polled	1,97,460	2,33,713	2,77,075	3,73,152
2. Percentage of total valid votes polled	69.2	67.8	63.41	58.49
3. Percentage of increase or decrease	...	(-)11.4	(+)5.6	(-)4.92

It is evident from the table given above that compared to 1952 elections, a lesser percentage of electorate went to the polls in 1957. However, an improvement in the political consciousness of the people is again visible in 1962 elections when a greater percentage of electorate went to the polls. As a candidate was returned unopposed from Raisinghnagar Constituency, there was a decline in the percentage of voters who exercised their franchise during the 1957 elections. In 1967 also a lesser percentage of voters as compared to 1962 elections exercised their right to vote. It can thus be concluded that increase in literacy or population was not reflected in any manner in increase in percentage of the electorate exercising their right of vote.

POLITICAL PARTIES

Indian National Congress

The most important political party in the district is the Indian National Congress which was established here in the year 1950. The strength of the primary members of this organisation in 1964 was about 30,000. It has its branches at every tahsil headquarters. At the apex in the district, the District Congress Committee has been formed consisting of a President, a Vice-President, a General Secretary and a Treasurer. All office bearers are elected except the General Secretary who is nominated by the President.

Since Congress is the only organised party in the district, it had contested the four General Elections and all by-elections by putting candidates in all the parliamentary and assembly constituencies, allotted to the district. The party won both the *Lok Sabha* seats allotted to the district in 1952. It secured 99,637 or 50.46 per cent votes and all the seats of *Vidhan Sabha*. In the Second General Elections, the party could secure one parliamentary seat out of the two, polling 1,11,779 or 47.83 per cent votes and winning five *Vidhan Sabha* seats. One seat of Raisinghnagar went to the Congress unopposed. In the third General Elections, the polling percentage in its favour fell to 38.4 and the total number of *Vidhan Sabha* seats was reduced to only one, though, the parliamentary seat was retained by it. The party regained the position lost by it in the Third General Elections by capturing seven assembly seats out of a total of nine seats during the Fourth General Elections. In 1967, it secured 1,53,328 or 41.09 per cent votes and increased its polling percentage by 3.5. It also captured two seats and secured 51.43 per cent votes during all the three by-elections held so far in the area.

Bhartiya Jan Sangh

This party established its district branch in the year 1951, starting work with an initial membership of 800 persons with head office at Ganganagar. Now in 1966, this party claims to have a membership of about 5,000 persons with branches at important towns in the district. The District Committee consists of a President, a Secretary, a Treasurer and a few members on the District Working Committee. As a matter of fact, this party is still in its infancy and is trying to gain ground in the district public life by contesting elections and strengthening its organisational set up.

The candidates put up by this party during all the four General Elections for *Vidhan Sabha* had a poor showing securing only 2,127 or 1.08 per cent, 2,986 or 1.28 per cent, 8,108 or 2.59 per cent and 11,683 or 3.13 per cent votes in the First, Second, Third and Fourth General Elections respectively.

Communist Party of India

The Communist Party did not contest 1952 General Elections. It unsuccessfully put up one candidate for *Vidhan Sabha* in 1957 General Elections securing 2,108 or 0.90 per cent votes. It is significant that this party put up only two candidates for *Vidhan Sabha* during the Third General Elections and both of them won. The party secured 62,215 or 19.87 per cent votes.

In 1967, the Communist Party (Marxist) unsuccessfully put up three candidates to contest three assembly seats. The party polled 23,972 or 6.42 per cent votes during the Fourth General Elections. The Communist Party of India also unsuccessfully contested one Assembly seat during the Fourth General Elections and polled 1,931 or 0.52 per cent votes.

Ram Rajya Parishad

A branch of Ram Rajya Parishad was established in the district in the year 1950. It has its branches at Sadulshahr, Hanumangarh, Nohar, Suratgarh, Raisinghnagar and Sangaria and it claims a membership of about 3,000. This party had contested three *Vidhan Sabha* seats during 1952 General Elections but without any success securing only 6,600 or 3.54 per cent votes. It did not put any candidate during the succeeding elections.

Swatantra Party

This party was established just before the third General Elections and had set up its branches in major towns of the district. It unsuccessfully put up a candidate for *Lok Sabha* during the third General Elections, who secured 19,735 or 5.8 per cent votes. In 1962, it did not contest any *Vidhan Sabha* seat while in 1967, it contested six *Vidhan Sabha* seats. It had made an election pact with Jan Sangh which contested two *Vidhan Sabha* seats. The Swatantra Party for the first time won one Assembly seat with 80,635 or 21.61 per cent votes in the district.

Other Political Parties have not yet been able to make much head way in the district. The popularity of the various political parties can be assessed on the basis of their performance in the Assembly Elections only, which has been illustrated in a consolidated form in the following table :

	Percentage of votes polled by								
General Elections	Congress	Jan Sangh	Swatantra	Communist Party of India	Communist Party (Marxist)	Samyukta Socialist Party	Praja Socialist Party	Independents	Other parties
1952	50.0	1.1	—	—	—	—	—	45.6	3.3
1957	47.8	1.3	—	0.9	—	—	5.3	44.7	—
1962	38.0	2.6	—	19.9	—	—	—	39.5	—
1967	41.1	3.2	21.6	0.5	6.4	10.8	—	16.4	—

NEWS PAPERS

District Newspapers and Magazines[1]

No daily newspaper is published in Ganganagar district but some weeklies, fortnightlies and monthlies are being published mainly in Hindi. In Ganganagar town itself seven periodicals are brought out. One periodical (weekly) is published from Hanumangarh but is printed in Ganganagar. Two weeklies appear from Nohar. Most of these newspapers and magazines are not very regular. They are described below in detail :

AHUTI—It was first published in 1957, the owner, publisher and editor being Shri Jagdish Chalana. It is printed in Hindi in Bharat Press, Ganganagar. Published as a weekly magazine it contains local news, and general information about civic and economic affairs of the area. Its sale is mostly confined to the district itself.

BHARAT GEN NAYAK—The publication of this magazine started in 1960 as a weekly news paper in Hindi. Shri Ram Chandra Tyagi is its owner, publisher and editor. It is printed in Ganesh Press, Kotwali Road, Ganganagar. Its circulation in the beginning is reported to be 1,000 copies per day. The present circulation is said to be 2, 500 copies per day, out of which 1,000 copies are supplied free of cost. The staff of this news magazine consists of one chief editor, six editors and four reporters. The magazine contains local news and information about current topics.

GANGANAGAR PATRIKA—This weekly magazine publishes local news and current affairs of the district. It came into being in 1964. Its owner, publisher and editor is Shri Hari Swami *Shilpi*. It is printed at Ganesh Printing Press, Kotwali Road, Ganganagar.

SEEMA SANDESH—It was first published as a weekly magazine in Hindi in 1951 by Shri Kamal Nain Sharma, its owner and editor. It is printed at Janta Press, Ganganagar, and contains general information and local news. Its daily sale has been reported as 5,170. Its circulation extends over the entire district and Rajasthan also.

TEJ—It is published from Hanumangarh by Shri Tej Narain Sharma who is also its editor and owner. This weekly in Hindi is printed

1. *Press in India 1966*, Part II, Registrar of Newspapers for India, Ministry of Information and Broad-casting, Government of India, New Delhi, 1966.

in Gupta Printing Press, Ganganagar. It deals with local news and current affairs. Its daily sale has been recorded as 325 copies.

HIND—*Hind* is an important monthly magazine published from Nohar but printed in Bansal Printing Press, Ganganagar. Its editor, publisher and owner is Shri Jinendra Kumar *Jhumar* who published it for the first time in 1956. The magazine contains general news and information about current affairs.

KARAMCHARI SANDESH—It is a monthly first published from Hanumangarh in 1957 by Shri Payre Lal Saini who is its editor and owner also. It is printed in Krishna Printing Press, Ganganagar. This news magazine primarily deals with the problems of labour engaged in the district in various productive enterprises.

Besides local newspapers and magazines, newspapers of regional standing like *Navjyoti*, *Rashtradoot* and *Adhikar* are also sold in good numbers in Ganganagar and other towns of the district, with an approximate daily average circulation in the district of 175, 109 and 250 respectively.

National News papers (Dailies)

The Major national dailies sold in the district are : *The Times of India*, *Patriot*, *Nav Bharat Times*, *Statesman*, *Hindustan Times*, *The Indian Express*, and *Sunday Standard* etc. Their approximate daily average circulation can be stated as follows :

1.	*Nav Bharat Times* (Hindi)	1947
2.	*The Times of India* (English)	236
3.	*Patriot* (English)	65
4.	*Statesman* (English)	10
5.	*The Indian Express* (English)	128
6.	*Hindustan Times* (English)	Not available
7.	*Hindustan* (Hindi)	,, ,,
8.	*Economic Times* (English)	2

Weeklies which have fairly large circulation in the urban areas are as follows :

Name	Place of publication	Language	Circulation in figures
Dharmyug	Bombay	Hindi	330
Dinman	Bombay	Hindi	200
Illustrated Weekly	Bombay	English	68
Saptahik Hindustan	Delhi	Hindi	Not available
Screen	Bombay	English	,, ,,
Blitz	Bombay	English & Hindi	,, ,,
Link	Delhi	English	,, ,,
Shanker's Weekly	Delhi	English	,, ,,
Sports and Past Time	Madras	English	,, ,,

The following fortnightly magazines are also subscribed :

Filmfare	(Bombay)	English	48 per month
Femina	(Bombay)	English	29 –do–

The following monthly magazines and periodicals also find a good number of readers :

Parag	(Bombay)	Hindi	182 per month
Sarika	(Bombay)	Hindi	76 per month
Sarita	(Delhi)	Hindi	Not available

Printing Presses

There are seventeen printing presses in the district as per the list of registered factories for the year 1965 under the Indian Factories Act. Most of them are located at district headquarters and have a limited capacity to meet the local needs only. Their names, location, employment capacity and ownership are given below :

S.No.	Name and address of the Press	Average daily employment (estimated)	Ownership
1.	Shankar Printing Press, Kotwali Road, Ganganagar	12	Private
2.	Bharat Printing Press, Ganganagar	2	–do–
3.	Janta Printing Press, Ganganagar	2	–do–
4.	Sewak Printing Press, Ganganagar	2	–do–
5.	Amrit Printing Press, Ganganagar	1	–do–
6.	Krishna Printing Press, Ganganagar	4	–do–
7.	Guru Nanak Art Press, Ganganagar	3	–do–
8.	Laxmi Printing Press, Ganganagar	2	–do–
9.	Agarwal Printing Press, Ganganagar		–do–
10.	Kashmir Art Press, Kacheri Road, Ganganagar	4	–do–
11.	Ashok Printing Press, Karanpur	1	–do–
12.	Prem Art Press, Arya Samaj Road, Nohar, No. 48, Ganganagar	2	–do–
13.	Gupta Printing Press, Gole Bazar, Ganganagar	2	–do–
14.	M/s Subash Printing Press, Karanpur	1	–do–
15.	M/s National Printers, Near Punjab National Bank, Ganganagar	2	–do–
16.	M/s Public Printing Press, Ganganagar	1	–do–
17.	M/s. New Light Printing Press, Hanumangarh town.	1	–do–

VOLUNTARY SOCIAL SERVICE ORGANISATIONS

Bharat Sewak Samaj

A branch of Bharat Sewak Samaj functions at Ganganagar under the control of the State organisation. Its officials include; a President, a Vice-President, a Secretary and a Treasurer. Branches under the district unit have been established in each tahsil and many of the villages. It has set up the following institutions : A Samyukta Sadachar Samiti and a Nashabandi Samiti which have been set up to work for the moral betterment of the life of the people residing in the area. Both these institutions are attached to their respective All India Organisations.

An International Study Circle has been opened at Manoharpura, Ganganagar where literature of 26 foreign countries is subscribed and made available in the reading rooms etc. Study groups have also been formed to deliberate on various current topics related to international problems.

Bharat Sewak Samaj Evening College is being run in Ganganagar, which imparts education upto degree standard in social sciences. The college is affiliated to the Rajasthan University for academic purposes and had 76 students on roll in 1966.

A Plan Publicity Centre opened in Ganganagar takes active and keen interest in the publicity of all development activities in the district.

Rajasthan Bhoodan Yagna Board

Acharya Vinoba Bhave who conceived the idea of *Bhoodan* Movement, twice visited this district in 1959 and 1960. During his *Padyatra* a number of people volunteered to work for *Bhoodan* and *Gramdan* movements for which they pledged their services. Other activities of Rajasthan Bhoodan Yagna Board have been detailed elsewhere.

Arya Samaj

A branch of Arya Samaj was opened in Ganganagar district in the year 1917 with an initial membership of twenty persons. It aims at bringing about social and religious reformation in Hindu society by denouncing untouchability and opposing religious obscurantism. It has been working actively since long for the social and moral uplift of the people living in the area regardless of their caste and creed.

Gramotthan Vidya Peeth, Sangaria

This organisation was first established in the district on 9th August, 1917 in the form of a middle school which ultimately rose to the standard of a agriculture college. It was primarily an educational society but subsequently also took up the cause of Backward Classes and sought to bring about agricultural improvement in the area. A number of primary schools, basic institutions, adult educational centres and social welfare centres have been opened by the Vidya Peeth and it has helped in the eradication of social evils like untouchability.

Rotary Club

Rotary Club Ganganagar was chartered on the 7th April, 1959. Its present membership is 43 which represents all the cross sections of vocations and professions of the town. Among the office bearers of the club are included President, Honorary Secretary, Joint Secretary and a Treasurer. The avowed objective of this club is to serve people through the implementation of various projects as laid down by the Regional Council. Among the items of the programme of Rotary is the development of fellowship and friendly intercourse among members as an opportunity for service, high ethical standards in business and professions, advancement of international understanding, good will and peace through a world fellowship of business and professional men united in the ideal of service.

With the co-operation of public, the local club has performed notable social services. It claims to have organised in 1965, an eye operation camp where more than 200 operations were performed free of cost. A free kitchen was opened to help the victims of the Ghaggar flood in 1965. It was run for ten days and it helped about 200 families of Talwara village. The club provides scholarship to poor and needy students. A small contribution of Rs. 5,000 was made towards the National Defence Fund at the time of Chinese aggression and active hostilities with Pakistan.

Women's Defence Committee, Ganganagar

The committee was organised at the time of Pakistani aggression in 1965 to render help in civil defence activities and boost up the morale of citizens of the town. Among the office bearers of the Defence Committee are President, Secretary and members of the working committee.

It organised a number of voluntary sevices during hostilities with Pakistan. Clothes, woollen garments, utensils, biscuits, fruits, milk and transistors were supplied to the military personnel. Cash contribution to the extent of Rs. 7,000 was sent to the National Defence Fund collected by organising a Defence Fair. The Principal, Government Girls' College, Ganganagar was the moving spirit to inspire other members with a sense of service in the cause of India's defence by providing necessary amenities to the defence personnel stationed in the district.

Bharat Scouts and Guides

It is an all India organisation having its offices at State and district headquarters. Local associations have been formed at Ganganagar,

Nohar and Bhadra. Various activities such as, self earning week (*Udyog Parva*), cleanliness week and social service on local fairs and Goga Meri fair etc., are organised by these units. During the national emergency in 1965, they ran first aid centres and blood donation camps and arranged home nursing and night guard. The other activities of Bharat Scouts and Guides are detailed elsewhere.

Jain Sabha

Jain *Sabha* of Ganganagar was founded on the 10th October, 1960. Its present membership is 100 (1966) representing all the sects of Jainism. Among the office bearers of the *Sabha* are included President, Vice-President, Secretary, Joint Secretary, Treasurer and six members of the Working Committee. The objective of this organisation is to unite all the followers af Jain religion on a common platform irrespective of their belonging to different sects of Jainism. Jain *Sabha* possesses its own building constructed at a cost of Rs. 70,000 mainly collected on charity. It also owns about 15 shops in Ganganagar. A sum of Rs. 800 per month is realised as rent which is utilised in meeting the financial needs of the Jain *Sabha*. Besides, contributions are made to the organisation by the members from time to time.

Among the items of the programme of Jain *Sabha* is the eradication of evil social customs, opening of charitable medical dispensaries, helping widows and organising Jain festivals like *Mahavir Jayanti* and *Samvatsari* etc. A library and a reading room have been opened by this *Sabha*. It claims to have recently organised an eye operation camp where operations were performed free of cost. It is also responsible for infusing the local Jain community with the spirit of charity and social service.

Red Cross Society

The local unit affiliated to the Rajasthan Red Cross Society, State Branch, Jaipur functions in the district under the chairmanship of the District Collector. Under the auspices of State Branch a Training School for nurses and mid-wives is run at the district headquarters. In 1966, about 30 candidates were receiving their training after which they were expected to serve the State Government. The State Branch has started construction work of a hostel and a school building for trainees at the district headquarters.

Besides imparting training the local unit occasionally distributes milk, medicines and nutritious food to the draught affected people of the district through relief distribution centres in the district.

Shri Guru Singh Sabha, Ganganagar

Established in 1930 at Ganganagar, Shri Guru Singh Sabha primarily works for the progress and prosperity of the Sikhs living in the district. It also endeavours to eradicate social evils and untouchability among them. Among the office bearers of the Sabha are included, President, two Vice-Presidents, one Secretary and 13 members of the Working Committee. This body also takes care of movable and immovable Gurudwara property.

Defence Efforts

China committed aggression on Indian territory in the year 1962 and Pakistan launched an armed attack in the year 1965. The entire nation rose as one man to withstand this unabashed aggression on the sacred Indian soil. These two events kindled an unprecedented spirit of enthusiasm in all parts of the country to work for national unity and solidarity and to keep inviolate the frontiers. Ganganagar district also made its own contribution to this national awakening. Under the chairmanship of the Collector of the district, five district level committees for collecting money for Defence Fund, public relations, public co-operations, medical relief and contribution of women in defence preparedness were formed and they kept their liaison with the committees constituted at the State level for the same purpose.

All people in the district contributed without distinction of caste and creed to the National Defence Fund created on this occasion to boost up the morale of the people. Total contribution to this fund, as disclosed by the district authorities came to Rs. 26,95,882 at the time of Chinese aggression and Rs. 11,40,110 at the time of Pakistani aggression. Besides this contribution in money, the people of Ganganagar in 1962, contributed gold more than the weight of three national leaders viz., Pt. Jawaharlal Nehru, Smt. Indira Gandhi and Shri Morarji Desai. Various other articles which might be of use to armed forces and their dependents were also contributed. Net weight of gold and silver deposited with the Chief Minister's Defence Fund during 1962 emergeney was 64,523 and 3,002 grams respectively.

Further, the people thronged to enlist themselves as members of the armed forces in all the recruiting centres in the district immediately after the aggression in 1962. Panchayat Samitis of the district resolved to step up food production in their areas. A new command of Home Guards was raised in the district and people were made conscious of civil defence measures.

As Ganganagar was a border district, more public consciousness was visible in people during Pakistani aggression. The disciplined way, in which they observed black out and other civil defence measures specially during the crucial months of October and November 1956, was a indication of their resolve to face danger boldly in a spirit of discipline in times of national peril.

CHAPTER XIX

PLACES OF INTEREST

A description of some of the important places of interest in the district is given below :

Anupgarh

Situated in the south-west of the district headquarters, at a distance of about 173 kilometres by rail, Anupgarh is a place of considerable historical importance. It lies in 29°11′ latitude north and 73°12′ longitude east. The place was formerly known as Chudher and there was an old fort which remained under the possession of the Bhattis prior to the advent of the Rathors in this area. It derives its present name from Maharaja Anup Singh (1669-98 A.D.), who built a new fort at the site of the old one in the year 1678 A.D. It was one of the important forts in the erstwhile princely State of Bikaner.

According to the Census of 1961, the town had a population of 2,294. It is the terminus station of a branch line of the Northern Railway which connects the town with Suratgarh. A tarred road connects it with Raisinghnagar its Sub-Divisional headquarters.

The town is the headquarters of the tahsil of the same name. It has a small municipality, a dispensary, a post office, a middle school, two rest-houses—one each of Irrigation Department and Public Works Department and a police station. Water is drawn from deep wells. The Municipal Board has installed a diesel pumping set on one of the wells to supply water to the local population. The area around the town is also known for the *Sajji* (Salsola) plant which is found in abundance here. Many people are engaged in manufacturing soda out of this tree.

Bhadra

Headquarters of Bhadra tahsil as also of panchayat samiti of the same name, the town is situated in 29°6′ north latitude and 75°10′ east longitude on the Hanumangarh-Sadulpur line of the Northern Railway. Its distance from the district headquarters is 181 kilometres.

According to the Census of 1961, the population of the town was 10,000. It is an important business centre having a good Gram *Mandi* and possesses post and telegraph office, a telephone exchange, a dispensary having facilities of X-ray and maternity ward and a police station. There is also a secondary school for boys and a middle school for girls, besides a number of primary schools. For the visitors there are two dak-bungalows one each of Irrigation and Public Works Department and some good *Dharamshalas* to stay in. Facilities of tongas and rikshaws are also available in the town. The town has a cinema hall and a club for the recreation of the citizens. A waterworks has, recently, been completed to provide drinking water facilities to the people. The town is connected by pucka road with Nohar and Hissar.

Ganganagar

It is the headquarters of the district of the same name and is situated in 29°55′ north latitude and 73°52′ east longitude. The town is located in the northern part of the district. Before the advent of the Canal, it was a small village called Ramnagar in Mirzewala tahsil of the erstwhile State of Bikaner. But after the advent of Gang Canal in 1927, a new *Mandi* was established here and named after Maharaja Ganga Singh. The town has, since then, developed rapidly owing to the increasing irrigational facilities and the resultant growth of trade and industry in the area.

According to Census of 1961, the town has a population of 63,854 persons. As it is situated at 29°55′ latitude and on a sandy plain at an elevation of 580·29″ from sea level, it suffers from extremes of climate. In winters the maximum and minimum temperatures range between 20·5°C to freezing point and some times the temperature even goes below it, while during summer it ranges from 42°C to 24°C. The average rainfall for Ganganagar is about 25·5 Centimetres per annum.

As there are no tanks or rivers, the main source of water is the Gang Canal. There are two old wells which are very deep and their water is brackish. The town is supplied hydro-electric power from Bhakra System. It can boast of a good hospital in the charge of a Principal Medical Officer. There are a number of private practitioners and *Ayurvedic Vaidyas*. There is also a Veterinary Hospital. Five Degree Colleges besides four higher secondary and 23 primary schools have been imparting education to the children. There are four cinema houses, a club and a public park for recreation of the citizens. Motor taxies, jeeps,

tongas and rickshaws ply within the town on hire. A rest house and *Panchayati Dharamshalas* are also available to stay in besides a few hotels. The facilities of post, telegraph and telephone are available in plenty. The town can legitimately take pride in its good cotton, grain and sugarcane *Mandi*. The principal trading communities are Mahajans, Aroras and Brahmans. A number of industrial concerns are also operating here, important among them being the Ganganagar Sugar Mills, Sadul Textile Mills and Cotton Ginning & Pressing factories.

It is connected by rail with Hanumangarh, Suratgarh, Bikaner and Delhi. Pucka roads connect it with Hindumalkot, Padampur, Karanpur and Hanumangarh. The work of connecting it with Hindumalkot by broad gauge railway line is in progress.[1]

A number of beautiful orchards are situated in the vicinity of the town. These orchards are famous for red blood variety of citrus (*Malta*). At a distance of about 16 kilometres (ten miles) from the town, Shivpur Headworks is a beautiful place from where the Gang Canal branches off into distributaries. It is the only picnic spot near the town where a canal rest house is being maintained.

Gogameri

It is a small village situated in the eastern part of the district, in Nohar sub-division, on the Sadulpur-Hanumangarh branch of the Northern Railway. It it also connected with Nohar by a metalled road and buses ply over it. The place is famous for the shrine of saint Goga, a Chauhan Rajput, who is believed to have held his sway in the thirteenth century over the entire area extending from Hansi to the Satluj. Many of the village folk believe that a visit to his shrine renders them immune from snake bite. In the vicinity, there is a place known as Gorakh Tila. It is said that a local celebrity named Gorakhnath, resided there in the former times. He was a very devout ascetic and was endowed with super-natural powers. It was due to his blessings that Maharani Bachal, who was issueless, got a son, the latter afterwards earned renown as Gogaji.

Every year a fair is held at Gogameri in the month of *Bhadrapad* (August-September) when about 60,000 persons assemble there. The worshippers belong to both the communities (Hindus and Muslims) and include Harijans, all coming from distant places of Rajasthan, the Punjab

1. The construction of broad gauge railway line has recently been completed, and regular railway service has been started on this line.

and Uttar Pradesh. Hindus worship him as Gogaveer or Jhujharveer and Muslims pay him homage as the Jahar peer. Coconuts, *Batashas* (Sugar drops) and cash is offered at the *Samadhi* which is made of white marble. A cattle fair is also organised on this occasion by the Animal Husbandry Department of the State. The Government earns a revenue of more than a lakh of rupees from the fair.

Hanumangarh Town

It is a Sub-Divisional and Panchayat Samiti headquarters situated in 29°35′ latitude north and 74°20′ longitude east on the left bank of river Ghaggar at a distance of 64 km. from Ganganagar. It is a developing town and is only next in importance to Ganganagar in the district with a population of 17,909 according to 1961 Census. The place was previously known as Bhatner. During the former times, it was inhabited by the Bhati Rajputs who were converted to Islam after the Muslim invasion and were later known as Bhattis. The present name of the town was given by Maharaja Surat Singh who conquered the fort in the year 1805 on Tuesday, the auspicious day of Shri Hanumanji, (Monkey-God) and named it Hanumangarh.

The historic Bhatner fort has been the scene of many a siege and bloody battles. Some historians have identified Bhatner with Bhatiya captured by Mahmud of Ghazni in 1004[1]. This, however, does not appear to be correct. In the middle of thirteenth century, Sherkhan, a cousin or nephew of Balban was Governor in these parts of the country. He is said to have carried out repairs of the forts of Bhatinda and Bhatner. It is believed, he died at Bhatner in 1269 and a tomb was erected to his memory at this place. In 1391, Bhatner was wrested by Timur from a Bhati Rajput called Raja Dul Chand and the fort was described as an extremely strong and well fortified place, known throughout India. Subsequently, the fort appears to have been held alternatively by Bhattis, Johiyas and Chayals (all Muslim Rajputs) till 1527 when it was taken by Rao Jet Singh, the fourth chief of Bikaner. Rao Jet Singh, in turn, lost it to Kamran, son of Emperor Babar, in 1538. It next reverted to the possession of Chayals but was recovered by Bikaner in or about 1560. It remained with Bikaner for about twenty years when the imperial treasure was plundered in its vicinity and consequently it was attacked and taken over by the Subedar of Hissar under orders from Emperor Akbar. The fort seems to have changed hands thereafter frequently until in 1805 when after a siege of five months it was

1. Powlett, P. W., *The Gazetteer of Bikaner State*, p. 122.

captured by Maharaja Surat Singh from a Bhatti chief named Zabita Khan.

Hanumangarh was a part of Nizamat Suratgarh in the erstwhile State of Bikaner. On the formation of Rajasthan State in 1949, it was made the headquarters of a sub-division of the same name. It is the headquarters of Bhakra Canal Irrigation Project and some of the offices of Rajasthan Canal Project are also located here. A colony of modern administrative buildings and residential quarters for the Government employees has sprung up near the Hanumangarh Junction which is about four kilometres away from the town across the dry bed of Ghaggar. For the town there is a separate railway station known as Hanumangarh town situated on the Sadulpur-Hanumangarh branch line of the Northern Railway. It possesses a post office, a telegraph office, a telephone exchange, a private degree college, a secondary school for boys and a secondary school for girls, a dispensary in Canal Colony, a dispensary in the town, a Railway Dispensary and two dak-bungalows, one each belonging to the Irrigation and Public Works Department. The town, a growing grain *mandi*, has a Municipality with the amenities of electricity and water supply being available. Gypsum is quarried in large quantity from the adjoining areas and exported from here. The facilities of motor taxies, tongas and rickshaws also exist. Hanumangarh is connected with Nohar, Bhatinda, Suratgarh, Ganganagar and Bikaner by rail and with Rawatsar, Sadulshahr, Sangaria, Suratgarh, Nohar and Ganganagar by road. It is also famous for the old temple of Bhadra Kali situated at a distance of 5 km from Hanumangarh town where a fair is held on *Chaitra Sudi Ashtami* and *Navmi* every year and about 5,000 persons congregate to worship the goddess.

Karanpur

The town is the seat of the sub-division and the tahsil of the same name and is situated between 29°50′ north and 73°28′ east at a distance of 50 kilometres south-west of Ganganagar. It is a *Mandi* town and a railway station on Hanumangarh-Suratgarh canal loop line of the Northern Railway. Formerly the place was known as Ratti Theri. The office of the Panchayat Samiti, Karanpur is also located here.

In 1961 the town had a population of 11,551. It possesses a post office, a telephone exchange, higher secondary schools for boys and girls separately, primary health centre having X-ray facilities and a maternity ward. There is an Irrigation Department's rest house, a cinema house and a municipality.

Nohar

Situated in the south-east of Ganganagar between 29°11′ north and 74°47′ east, the town is the headquarters of the sub-division and tahsil of the same name. It lies on the Hanumangarh-Sadulpur branch line of the Northern Railway at a distance of 142 kilometres (88 miles) from the district headquarters.

Nohar is a very old town. About *Vikram Samvat* 1870 or 1813 A. D. the fort of Nohar was built, ruins of which can still be seen. The town is electrified and has a post office, a telegraph office, a telephone exchange, three primary schools including a montessory school for children below six years, one higher secondary school for boys and one for girls, a dispensary with six beds and a cinema house. The facility of piped water supply is also available. Accommodation for the tourist can be had in two rest houses and three good *Dharamshalas*. Tongas are available within the town for conveyance. It is well connected with Ganganagar and Hanumangarh by tarred road. A municipality looks after the civic affairs.

Nohar is known for an old Jain temple and the *Jogi Assan* of the Nath Sampradaya. There is also a Sikh Gurudwara which was said to have been founded to commemorate the visit of Guru Govind Singh to this place.

The soil of this place is sandy but is very fertile when irrigated. Branch of the new Bhakra Canal passes from near the town. It has a developing gram *Mandi*.

Padampur

It is a grown up village having a population of 4,087 (1961 Census) and situated in the south-west of Ganganagar at a distance of 39 kilometres (24 miles). Before the advent of the Gang Canal the place was known as Baira. At present, it is the headquarters of a tahsil of the same name as also of the panchayat samiti. This place is considered important for its grain and cotton *Mandi*. It has a higher secondary school for boys and a middle school for girls, a dispensary with 8 beds and a maternity ward, a post office, a telegraph office, police station, a cinema house and a rest house managed by the Irrigation Department. There is a Government Agriculture Farm of eighty acres for conducting research in agriculture and for producing improved seeds. It is an important road junction and is

connected with Ganganagar, Raisinghnagar, Gajsinghpur and Karanpur by metalled road.

Pallu

It is a small village situated in the south-west corner of Nohar tahsil. The place has attracted attention as a result of unearthing of some sculptures which are believed to relate to the 12th and 13th centuries. Of these, two marble statues of Saraswati (Goddess of Learning) are considered to be among the best pieces of the mediaeval Indian Art[1]. Many other pieces of art and coins have been discovered. The study of which is yet to be conducted and it is expected to throw considerable light on the old culture of this area.

The place is also known for a temple of Brahmani but there is some controversy about its identity. Some claim it a Jain temple while others consider it Hindu. A fair is held here on *Asoj Sudi Ashtami* (September-October) every year which is attended by about 1,000 people. The place is connected by pucka road with Nohar, Hanumangarh and Sardarshahr. It possesses a primary school, an *Ayurvedic* dispensary and a post office and it is also the headquarters of the Gram Panchayat and Nyaya Panchayat.

Raisinghnagar

Home of the Panwars, the town was previously known as Panwarsar. At present, it is the headquarters of the tahsil, the sub-division and the panchayat samiti of the same name. It lies in 29°32′ north and 73°27′ east on a plain with a population of 9,493 (according to the Census of 1961).

The town is situated at a distance of 68 km by road and 83 km by rail in the south-west of the district headquarters. It lies on Suratgarh-Ganganagar-Hanumangarh branch line of Northern Railway and possesses a post and telegraph office, a telephone exchange, a primary health centre and a dispensary, two rest houses-one of Irrigation Department and the other of the Panchayat Samiti, a police station, a cinema house and two secondary schools-one each for boys and girls. It is a good *Mandi* of grain and cotton. It has a municipality also. The town is electrified and has its own waterworks.

1. One of these statues has been kept at the Government Museum, Bikaner and the other at the New Delhi Museum.

The famous Sikh Gurudwara of Budha Johar is situated at a distance of 32 km from Raisinghnagar. The Gurudwara has been named after one Budha Singh whose followers, according to tradition, killed Massa Rangar, a Muslim adventurer of Punjab, about the year 1737–38 and brought his head to this place.[1] A big fair is held here on *Bhadon ki Amavasya* (August) every year to commemmorate the heroic deeds of Budha Singh. Recently a magnificient Gurudwara has been constructed here.

Sadulshahr

This place, named after Maharaja Sadul Singh of Bikaner, is situated in Hanumangarh sub-division and is a tahsil headquarters. Up-till July, 1965, it was only a sub-tahsil of Hanumangarh tahsil. According to Census of 1961, the population of the village is 4,515. It is situated near the border of Rajasthan and the Punjab on canal loop line of the Northern Railway at a distance of 29 kilometres from Ganganagar. It is connected by tarred road with Hanumangarh, Sangaria and Abohar. The village is electrified and possesses a post and telegraph office, a telephone exchange, a higher secondary school, a primary health centre with 8 beds, canal rest house and a police station. It is a small grain and cotton *Mandi*. Private jeep taxies are available here.

Sangaria

Situated between 29°47½′ north and 74°28′ east, Sangaria is a small municipal town with a population of 8,112 persons and is the headquarters of the tahsil of the same name. The main attraction of the town is a museum which is named as Sir Chotu Ram Memorial Museum. It can boast of some rare collections in the form of old images, ancient paintings, modern paintings and things belonging to Chinese, Tibetian and European art. The museum has at present, ten main sections devoted to sculptures, epigraphs, antiquities, paintings, etc. The museum is being run by Gramotthan Vidyapeeth Sangaria, a rural institute which also runs a number of other educational institutions[2].

Sangaria is a railway station on Hanumangarh-Bhatinda line of the Northern Railway at a distance of 88 kilometres from Ganganagar.

1. More details about this heroic action have been given in Chapter III.

2. Swami Keshawa Nand, an eminent social worker of the area, laid the foundation of the institution about half-a-century back and its growth and development is mainly due to his missionary zeal.

The town has a post and telegraph office, a police station, a telephone exchange, a primary health centre with eight beds, a canal rest house, a cinema house, a club, a public library and a cotton and grain *mandi* in the town. It is electrified and has waterworks also. Taxis and tongas are available for conveyance.

Suratgarh

A small growing town, situated on the bank of river Ghaggar in the southern part of the district, Suratgarh is the headquarters of the tahsil of the same name. It lies in 29°18′ latitude north and 73°54′ longitude east at a distance of 78 km by road from the district headquarters. The town is a railway junction and trains for Hanumangarh, Anupgarh, Ganganagar and Bikaner pass from here.

The town has been named after Maharaja Surat Singh who built a fort here in v.s. 1862 (1805 A.D.). The fort is still in good condition and both the tahsil office and the police station are located inside it. At a distance of four kilometres from the town is situated one important temple of Hanumanji, where a fair is held annually in the month of *Kartik* (October-November), attended by about 5,000 persons.

It has a municipality which looks after water supply and sanitary services. The town is electrified and has a post and telegraph office, a telephone exchange, a cinema house, a branch of the State Bank of Bikaner and Jaipur and a dispensary. It also possesses one secondary school for boys and one for girls. There are two rest houses and a few *Dharamshalas* in the town. In 1956 a central mechanised farm with the assistance of Union of Soviet Socialist Republic was set up near the town where ploughing sowing, cutting and thrashing of the crop is done mechanically. The Rajasthan Canal is aligned to pass through its neighbourhood, which will provide adequate irrigational facility to the area. The population of the town according to Census 1961, is 8,330.

6.4 kilometres (four miles) to the north-east of Suratgarh are found the ruins of Rang Mahal, which is said to have been the capital of a Johiya Chief, who according to Tod, was 'punished by a visitation of the Macedonian conqueror' possibly Alexander the Great. The place is known for its archaeological excavations made by the Swedish Mission. The excavations show that the place was flourishing in or about 500 B. C.

Another site, called Kalibangan, on the southern bank of the Ghaggar (ancient Saraswati) in Suratgarh tahsil is being systematically excavated since 1961. The two excavated mounds show that the civilisation which flourished around this area preceded the Harappan civilisation. Further survey is in progress and it is hoped that many missing links in the history of the area will be brought to light.

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GLOSSARY

Abadkar	Inhabitant
Amani	Work done on time-rate wages
Amil	A revenue official during the Mughal period
Aya	A female attendant for children
Barani	Un-irrigated agriculture land
Bidi	Crude form of cigarette rolled within a leaf
Biswedari	A land tenure
Chari	Green plants used for cattle fodder
Chak	A territorial division of land (agricultural) in rural area
Chalna	Sieve, cribble
Dal	Pulse
Dams	Name of the currency during medieval period
Desi	Indigenous
Dharamshala	A house for pilgrims, an inn built out of philanthropy
Dhobi	Washerman
Farrash	A servant
Gadia Lohar	A roving black-smith who carries his hearth on a cart
Gashta Girdawari	A system of field inspection by a revenue official
Girdawar	A revenue official
Handi	A small earthen pot

Hundi	A bill of exchange
Jagir	Same as Jaghir
Jagirdar	Holder of a *Jagir*
Jhil	Lake
Kanungo	A revenue official
Khal	Skin, hide
Khalsa	Land directly managed by the State, crown land
Kharaba	A remission granted by the State to the cultivator on account of partial failure of crop
Khatedars	Tenants on agricultural land enjoying occupancy rights
Khud Kasht	Land cultivated by the owner
Kurar	A tax for fodder for each family
Lambardar	A revenue official
Mahal	Palace; also a territorial sub-division of Mughal administration roughly corresponding to a tahsil
Mandi	A market especially for agriculture produce
Medh Bandhi	Field ridging
Naib	Deputy
Nali	A drain
Nazim	A government officer incharge of an administrative division known as *Nizamat*
Nazr	A present or offering to a superior
Nizamat	An administrative division of territory during princely regime
Niwar	Wide and compact cotton tape used for a bedstead

Parganahs	Administrative division of territory during the princely times
Patwari	A revenue official
Patwar Halkas	Jurisdiction of a *Patwari*
Sadar Kanungo	A supervising revenue official
Sanad	A certificate
Sarkars	Sub-division of a *Subah* during the Mughal times
Sarson ka Sag	A vegetable dish prepared from the green leaves of mustard peculiar to Punjabi house-holds
Sawar	Rider
Subah	An administrative division of territory during the Mughal period
Sunar	Goldsmith
Taccavi	An advance of money given by the State to cultivators for agriculture purpose
Tasla	A cup-shaped vassel, a shallow pan
Tawa	An iron plate for baking bread
Vaidya	A physician (generally Hindu) practising Ayurvedic system of medicine
Vedic	Pertaining to Vedas

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35	–	8	200	100
46	4	3	Visualised	Visualise
76	6	2	Bhatti	Bhati
78	3	7	re	are
125	2	5	90.8	190.8
128	Table Col. 2	8	4,50,437	4,50,440
128	Table Col. 6	8	4,51,668	4,51,671
133	Table Col. 2	7	4,801	4,802
133	Table Col. 2	10	23	22
133	Table Col. 3	10	43	57
133	Table Col. 4	10	21	23
148	1	24	1,918	1,819
195	2	14	imle	lime
223	Table Col. 4	2	9.10.1964	9.10.1945
223	Table Col. 4	3	22.11.1959	27.11.1958
224	Table Col. 4	1	2.2.1947	2.4.1947
224	Table Col. 4	6	9.3.1962	8.3.1962
224	Table Col. 4	7	16.4.1945	15.4.1945
290	2	4	person	persons
309	–	11	interprising	enterprising
324	1	13	but	and
332	1	7	revenue each	revenue on each
335	1	8	exended	extended
354	Table 2	Col. 2	Good	Goods
357	–	1	Ganganagar,	Ganganagar.
381	4	6	ond	one
400	Col. 3	S. No. 7	Hakim	Hakam
435	6	4	power	powder
488	1	1	BASU	BALU
532	3	2	member	number

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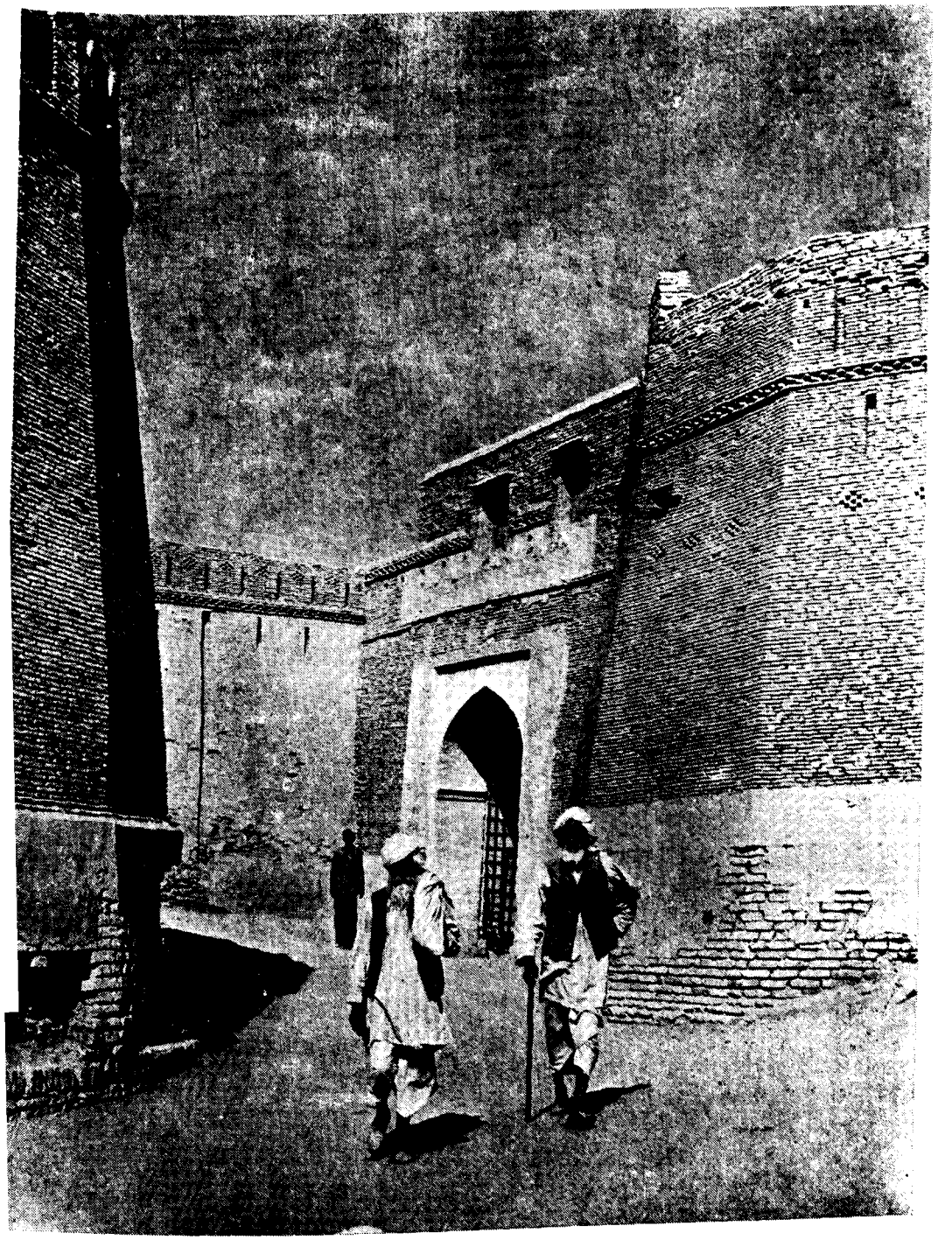

Anupgarh Fort

A view of the Gang Canal

Anaj Mandi **(Grain Market), Ganganagar**

A ship of the desert

Famous maltas of Ganganagar

A village woman with typical dress and ornaments

Saraswati of Pallu

Terra-cottas of Rang Mahal

Hanumangarh Fort