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GAZETTEER OF INDIA
RAJASTHAN
BARMER



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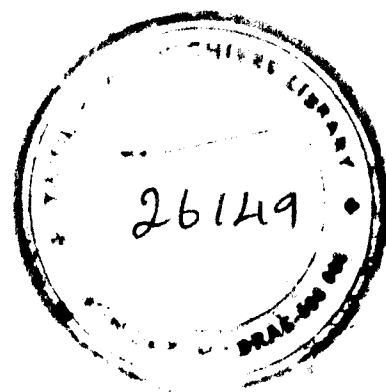
By

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PREFACE

This is the first of a series of district gazetteers being published by Government of Rajasthan under the scheme for revision of district gazetteers sponsored by Government of India. Almost all the districts of Rajasthan were carved out of the erstwhile princely States of Rajputana after integration. Thus Barmer used to form a part of Jodhpur and the area now comprising the district includes the former parganas of Mallani, Shiv, Pachpadra, Siwana and a part of Sanchore. It has necessarily been given a summary treatment in Erskine's Gazetteer for Western Rajputana State and Bikaner Agency published in 1909. A separate gazetteer for the pargana of Mallani was published by Col. C. K. M. Walter in 1877 A.D. It may, therefore, be said that a district gazetteer for Barmer is being published for the first time.

As far as possible, the arrangement of the chapters and the subject matter given in the synopsis prepared by the Central Gazetteers Unit has been closely adhered to. However, due to paucity of material, the chapter on 'Miscellaneous Occupations' (Chapter VIII) has been combined with the chapter on 'Economic Trends' (Chapter IX) and the chapter on 'Social Welfare' (Chapter XVII) with chapter on 'Public Life' (Chapter XVIII), reducing the total number of chapters from 19 to 17. The suggestions made by the Central Gazetteers Unit and the Provisional figures of 1961 Census have been duly incorporated. A select bibliography and an index have also been added. Due to unavoidable circumstances, it has not been possible to publish the map of the district.

D. C. JOSEPH.

GAZETTEER OF BARMER DISTRICT

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CHAPTER I

GENERAL

Introductory.

Origin of name

The district of Barmer takes its name from the headquarters town, which is said to have been founded in the 13th century by Bahada Rao (also called Bar Rao) and named after him Bahada-mer or Barmer, i.e., the hill fort of Bar. The actual town of Bar Rao is about four miles to the north-west, the ruins of which are now known as Juna Barmer. The present inhabited site was established by Rawat Bhimaji.

Location

The district is situated in the south-west of Rajasthan, between $24^{\circ} 58'$ and $26^{\circ} 32'$ north latitudes and $70^{\circ} 5'$ and $72^{\circ} 52'$ east longitudes. The total area, according to revenue records, is 10,333 square miles, making this the second largest district in Rajasthan (after Jaisalmer) and covering more than 7.5 per cent of the total area of the state.

The district is bounded on the north by Jaisalmer and Jodhpur districts; on the east by Jodhpur, Pali and Jalore districts; on the south by Jalore district and on the west by Tharparkar district of Pakistan.

According to the provisional figures of the 1961 Census, the total population is 6,48,734. Barmer stands 17th among the districts of Rajasthan in respect of population.

Administrative changes

The former princely state of Jodhpur was divided into 24 parganas. Four of these parganas, plus part of a fifth, covered the area now known as Barmer District. The largest of these and, indeed, the largest pargana in the state was Mallani, which had an area of 5,760 square miles. The other parganas of the area were Shiv (2,400 square miles), Pachpadra (856 square miles) and Siwana (760 square miles). The fifth pargana, Sanchore, south of Mallani and covering an area of 1,776 square miles, now forms part of Jalore District with the exception of the Chohtan area; which was transferred to Barmer a few years ago.

In 1947, the parganas (hakumats) of Barmer (formerly Mallani), Shiv, Pachpadra and Siwana were under the administrative control of hakims, responsible to a Judicial Superintendent stationed at Balotra. Early in 1949, before the integration of the state in Rajasthan, the hakumats were re-designated tehsils and a Deputy Commissioner was posted at Barmer in control of the area. On April 7, 1949, the state was merged and the four tehsils formed the new district of Barmer, which had an area of 10,150 square miles following minor boundary adjustments; with the acquisition of the Chohtan area from Jalore District, the total area rose to 10,333 square miles.

Administrative units

There are two sub-divisions in the district—Barmer and Balotra. Barmer sub-division has three tehsils—Barmer, Shiv and Chohtan and Balotra two—Pachpadra and Siwana. The number of villages in and area of each of these tehsils and their population (1961 Census figures) are as follows:—

Tehsil	No. of cities, towns and villages	Area (Sq. miles)	Population
Barmer	379	4,300	2,96,780
Shiv	74	2,448	55,969
Chohtan	146	1,532	1,22,265
Siwana	89	760	76,234
Pachpadra	159	1,284	97,486
TOTAL	847	10,333	6,48,734

Barmer tehsil alone covers more than 40 per cent of the total area of the district.

Towns

In the 1961 Census, only two towns are listed—Barmer and Balotra. Barmer is situated at latitude 25°45' north and longitude 71°23' east and Balotra at latitude 25°50' north and longitude 72°15' east. A description of these towns has been reserved for the last chapter.

TOPOGRAPHY

Apart from a small off-shoot of the Aravalli hills in east, the area is a vast sand covered tract with sub-stratum of gneiss, hornblende and quartz, which here and there rise up through the sand, in some instances to a height of 800 to 1,000 ft. Thus, the country west of the Luni river presents a picture of a vast, sandy plain dotted with bold and picturesque hills called *mers*. In the extreme north and west the sandy plain is broken by sandhills or *tibas* which sometimes rise to a height of 300 or 400 ft. This area is dreary and inhospitable and forms part of Thal Desert.

Of the five tehsils comprising the district, viz., Barmer, Chohtan, Shiv Pachpadra and Siwana, the general appearance of the first four is similar, i.e., sandy desert with scattered hills. In the tehsils of Barmer (commonly known as Mallani) and Shiv, however, sand-hills are more common than in the other two. Though the river Luni flows through the southern part of Pachpadra tehsil and the eastern portion of Barmer tehsil, it has little effect on the surrounding desert.

Siwana tehsil, east of the Luni, is comparatively greener: it is also more hilly than the other tehsils.

Hills

In the tehsils of Barmer, Chohtan, Siwana and Pachpadra, as earlier stated, there are scattered hillocks. In Siwana tehsil, there are two parallel ranges, each about 15 miles long, running roughly east-west about two miles apart. These hills are locally known as Chhappan-ka-pahar. Erskine refers to them as the Saora range. The highest elevation, which occurs in the northern range, is 3,737 ft. above sea level; the southern range attains a maximum height of 2,540 ft. Other high points are Siwana 1,050 ft., Than 1,599 ft., Rakhi 1,231 ft. and Thapan 1,634 ft. above sea level.

None of the hills of Shiv tehsil is high. Near Khudayal is a hill 1,111 ft. high and Kotra is 1055 ft. No other peak is more than 1,000 ft. above sea level. The highest points in Barmer tehsil are: Barmer 1,384 ft., Junapatrasar 2,105 ft., Sihani 1,731 ft. and Danoda 1,503 ft. above sea level. Chohtan has two hills worth mentioning—Taratar (1,824 ft.) and Chohtan (2,155 ft.). The highest point in Pachpadra tehsil is 1,349 ft. above sea level, near Nagar Mhewa.

Apart from thorny shrubs, there is practically no vegetation on these hills. One plant, the Thor (*Euphorbia nerii-folia*) of the cactus family does grow extensively but it is of no practical use. The hard stone of the hills is quarried for building purposes. Due to the shortage of sandstone, however, roofing materials have to be brought from outside the district.

Desert

The district as a whole forms part of the great Indian desert. West and north of Barmer town lies the true desert as is found in Sind and Jaisalmer. The vegetation of this area is scanty in the extreme, water supplies are practically non-existent over large areas and the inhabitants are largely nomadic cattle and sheep grazers. The inhospitable nature of the tract and the people's struggle for survival is reflected throughout this gazetteer.

RIVER SYSTEM AND WATER RESOURCES

Main Rivers

Luni.—The only river of consequence is the Luni or Salt River, the Lonavati or Lavanavati of ancient Sanskrit writers. This river rises in the hills south-west of Ajmer city and, after passing Govindgarh, is joined by the Sarsuti (Saraswati) stream which has its source in the sacred lake of Pushkar. After flowing through portions of Nagaur, Pali and Jodhpur districts (near Bilara the river has been dammed to form a huge artificial lake) it enters this district near the village of Rampura in Pachpadra tehsil and flows westward till just beyond Tilwara, where it alters course to south-west. The river flows in a deep gorge from the village of Bhumka up to Gandap, where it enters Jalore district (Sanchole tehsil) and finally loses itself in marshy ground at the head of the Rann of Kutch. The total length of the river is about 320 miles, of which about 120 miles lie in this district.

During the monsoon months the Luni, swollen by tributaries from the Aravalli hills, carries a considerable volume of water, but the level sinks rapidly due to evaporation and absorption by the sandy soil. The net result is that the bed is dry for most of the year, though in places there are sizable pools which retain water even during the summer months. In the hot months melons and the *singhara* nut (*Trapa bispinosa*) are grown on the dry bed.

In years of heavy flood which, however, are rare, the river overflow (known as *rel*) saturates the soil on adjacent land and lush crops of wheat and barley are grown. The Luni, however, is notoriously capricious; on one bank it may be a blessing, on the other a curse. As far as Balotra the water is generally sweet, but lower down the salt content increases rapidly till, on the edge of the Rann, it is concentrated brine. Water is led off from wells sunk on the banks to a few feet below the level of the bed and sizable areas are thus irrigated. There is a proverb in Marwar that half the cereal produce of the country is the gift of the Luni. Even in areas where the salt content of the river is high, the water that filters through to the wells is comparatively sweet and drinkable.

Places situated on the banks of the river in this district are; Rampura, Mayon-ka-bara, Kharantia, Goda-ka-bada, Kotri, Bhanawa, Samdari, Bamsin, Silor, Kumpawas, Bittuja, Balotra, Tilwara, Gol, Bhukan, Sindari, Gadesara, Mandwala, Sara, Kerawa, Golia, Khudela, Tukia, Bedawas, Gura, Gadawi and Gandap.

The other rivers of the district are:—

Sukri Nadi.—This river rises near Desuri on the western slope of the main range of the Aravalli hills. It passes through Pali district and borders Jalore district before entering Barmer near Majal-Barwa. It flows for only 15 miles in this district before joining the Luni near Samdari, but its total length is 100 miles. This also is a non-perennial river, as the name implies. The bed is sandy and porous; bed cultivation is possible and lift irrigation is practised from wells along its course. Two important villages on its banks in this district are Majal and Jalia.

Mitri.—This is a small river rising in the Aravalli hills in Jalore district. On reaching the lowlands of Ahore tehsil of that district it spreads out into a marsh but again emerges as a river near the village of Dudiya. The stream enters this district near Rajia-ki-Dhani and flows past Motisara and Rakhi in Siwana tehsil where it usually terminates. In years of heavy rain, however, the waters of the Mitri join the Karnawar nala near Bamsin in Siwana tehsil and empty into the Luni near Mangla village.

Sukri No. 2.—This river has changed its course and no longer flows through the district. Previously, it entered Barmer territory near the village of Dhavan and, flowing for about 20 miles thereafter, joined the Luni near Golia. Now it joins the Sagi river near Zeb in Sanchole tehsil of Jalore district.

Among the lesser streams, mention may be made of the Lik Nadi in Pachpadra tehsil, the Ranigaon nala near Barmer town, the Kavas nala which terminates near the railway station of that name and the Khorayal nala in Shiv tehsil. None of these carries water except for a short period in the monsoon months.

Lakes and Tanks

There are no lakes in the district, though near Thob in Pachpadra tehsil there is a depression about 500 acres in area which is filled with water during the rains. There are, however, numerous small ponds called *pars* which are invaluable in this arid land. The ponds at Rewana in Pachpadra teshil and in Shiv tehsil usually retain some water throughout the year, but most of the others are dry by early summer.

At present, the only irrigation bund in the district is situated at the village of Meli in Siwana tehsil. The catchment area of the bund is about 90 square miles. Plans to build other bunds are described in chapter IV.

Underground Water Resources

The water table lies very deep, varying from 200 to 300 ft. or more. Thus tube-wells can be of great service as it is extremely difficult to dig wells except near the banks of streams and in depressions. In the whole district there are only about 23,000 wells or just over two wells per square mile. Moreover, the water in a large number of wells is brackish and unfit for human consumption. Some are actually poisonous. Further details are given in the chapter on Agriculture and Irrigation.

GEOLOGY

The oldest rocks found in the area are schists belonging to the Aravalli system. Resting the schists is a series of ancient subaerial rhyolites with subordinate bands of conglomerate, which cover a large area in east Barmer, Jalore, Pali and Jodhpur districts and extend up to Jodhpur city itself. The subaerial character of the lavas is proved by the inclusion between the flows of bands of rolled pebbles of the lavas themselves and other crystalline rocks derived from the Aravalli range. The rhyolites of this area are pierced by dykes and bosses of granite containing hornblende but no mica (known as Siwana granite) as distinct from the Jalore granite, which contains mica. These granites form a considerable hill mass in the east of the district, the

Saora range south of Siwana rising to over 3,700 ft. above sea level. The rhyolites are also traversed by numerous bands of intrusive rock containing oegirime, augite, sanidine and sodalite.

Sandstones and conglomerates with traces of fossil leaves occur at Barmer and are probably of Jurassic age. More recent deposits consist of calcareous conglomerates, which denote a period when the flow of water was much greater than at present.

The sand dunes of the area are of the transverse type, that is, they have their longer axes at right angles to the direction of the prevailing south-west wind. The sand contains large quantities of the calcareous casts of foraminifera, and by the solution of these large beds of *kankar* have been formed. The sand also contains salt, which has been loosened by rain over the ages to collect in the Pachpadra depression.

Geological Formation

It seems likely that the whole of western Barmer was under the sea in early geological times, and rose in the Eocene period. The Barmer sandstones, as already pointed out, contain plant fossils.

There is no known occurrence of Eocene beds south and east of Barmer. The Jalore and Siwana ranges of hills must have acted as an effective barrier to the eastward penetration of the Eocene Sea.

One authority considers it probable that the Eocene Sea came up from the north-east coast of the Rann of Kutch rather than from the west. It is possible that such an encroachment took place along the Luni Valley, which occupies low ground west of the Jalore and Siwana hills. Several outcrops of Barmer sandstone are also to be seen in the higher parts of the valley east-south-east of Barmer, in the neighbourhood of Nausar, Sanpa and Hodu, to the west of the river. East of the river, no rocks later than the Mallani lava flows are to be seen and no Eocene strata have been traced south of Barmer. Earlier Lower Eocene strata with lignite and Lower Eocene fossils are met with in the region west of Barmer.

The question of the direction from which the Eocene marine intrusion took place is of importance as the search for lignite should obviously be directed towards the deeper and lower parts of the formation. Marine fossils have been found near Pachpadra which is about 55 miles E.N.E. of Barmer and west of the Jalore, Siwana

barrier. If their age is established as Eocene, the deposits would mark the boundary of the gulf south of the Jaisalmer plateau.

Mineral Wealth

The district is poor in metallic mineral deposits but there are potentialities for the exploitation of non-metallic mineral deposits such as gypsum, selenite, fuller's earth, bentonite, clay, glass sand, salt and ochres. A description of the main workings is given in the chapter on Industries.

Earthquakes

Faint tremors were recorded at Barmer and Pachpadra on January 15, 1934, during the Bihar-Nepal earthquake. These apart, there is no record of any such happening; this is a geologically stable zone.

FLORA

The Flora of the district is that of a hot desert region. A study made in 1917 revealed that the total number of flowering plants found within the area was only about 507 species, including 46 exotics. Most of the flowering plants are shrubs and wild grasses. The latter do not, however, survive for more than a few months after the rains. The main varieties of trees are:—

Khejra (Prosopis spicigera):—This is the most important tree of the desert area and plays an important role in the scheme of afforestation. If it survives the challenges to its early growth it sinks its roots so deep that it is able to withstand the strong wind and shifting sand even in years of acute water scarcity. The roots of the tree may be four to five times its height. One tree exhibited in Paris in 1873 had roots 88 ft. long; another record specimen was acquired by the wood museum at Kew.

The *Khejra* has various uses. Its leaves and shoots are used as fodder for camels, cattle and goats and its pods for human consumption. When felled, the wood is used as fuel and for making roofs, carts and agricultural implements. The pods of the *khejra* form the principal fruit-vegetable eaten in the desert. The pod has three names—*toia* (at the time of budding), *sanari* (when it ripens) and *khokha* (dried). In addition, the bark is stripped off in years of famine and ground with grain to give the meagre meal a more substantial bulk.

Rohira (Tecoma undulata):—This is the most important timber tree. The wood is used for making doors, windows and furniture. It is said that it cannot withstand damp, but in the desert this is scarcely a problem. This tree is more common in the southern portion of the district and would appear to require rather more water than the *khejra*.

The *rohira* flowers from November to March. The flowers are large and vary in colour from bright orange to yellow and have a pleasing effect on the drab countryside. They do not, however, have any odour.

Kair (Capparis aphylla):—This is a thorny shrub which sometimes grow to the size of a tree. It has no leaves, the twigs serving the purpose of leaves as they remain green throughout the year. The *kair* flowers twice a year and the tiny red flowers and raw fruit are used as vegetables and for making pickles, respectively. The ripe fruit, termed *dhalu*, is also eaten. The twigs serve as fodder for camels and goats.

Phog (Calligonum polygonoides):—This is a bush which looks like the *kair* from a distance, but it has no thorns. The twigs are used as fodder for camels and the roots as fuel. While the *kair* prefers hard ground, the *phog* grows only on sandy soil. The *phog* loses its greenery in summer, but for all that it is the shrub on which camels have to subsist for the greater part of the year.

Ak or Akra (Calotropis procera):—This is the main flowering shrub of the desert. It is in bloom for many months of the year and its leaves are always green in the hottest weather. The cotton-like substance which surrounds its seeds is used for stuffing pillows and quilts, its wood for making roofs and cattle enclosures or as fuel and the acrid juice of its green shoots as a medicine.

Jal:—Two varieties of *Jal* or *pilu* (*Salvadora persica* and *oleoides*) are commonly seen. The ripe fruit is eaten by the local people and is said to be sweeter than the fruit of the same plant found in other areas.

Ber (Zizyphus jujuba) and *Bordi (Zizyphus rotundifolia)*:—These trees provide the principal fruit of the desert and the leaves of the *bordi*, called *pala*, are an important source of fodder.

Three varieties of *Acacia*, namely the *babul* (*Acacia arabica*), *kumat* (*Acacia rupestris senegal*) and *banwal* (*Acacia jacquemontii*)

are found in fair numbers in the eastern parts of the district. The leaves and pods of the *babul* are used as fodder in the hot weather and the bark as a tanning and dyeing agent. The tree also exudes a valuable gum.

Other trees include the *sandeshra* (*Poincinia elata*), *neem* (*Azadirachta indica*), *peepal* (*Ficus religiosa*), *siris* (*Albizzia lebbek*), *morali* (*Lycium europaeum*), *arni* (*Clerodendron phlomoides*) and the *jhau* or *farash* (*Tamarix articulata*) mostly found in the bed of the Luni.

Grasses

A large number of annuals, both shrubs and grasses, grow in the desert region during and after the rains, making it excellent pasture land for some months. The names of the more important species are:—

- (a) *Dhaman* (*Pennisetum cenchroides*): This is considered the best of the local grasses.
- (b) *Bharut* (*Cenchrus catharticus*): The seeds of the *bharut* are also eaten by human beings in years of scarcity. The seed is about the size of a pin's head and is enclosed in a prickly husk which causes a great deal of discomfort to both man and beast; it sticks in the clothes of the former and hair of the latter and is very difficult to remove.
- (c) *Tantia* (*Eleusine flagellifera*).
- (d) *Bikaria* (*Indigofera cordifolia*).
- (e) *Siwan* (*Panicum frumentaceum*).
- (f) *Makra* (*Eleusine aegyptiaca*).
- (g) *Mothea* (*Mothea tuberosa*).
- (h) *Lamp* (*Aristida depressa*).
- (i) *Kuri* (*Brachiaria ramosa*).
- (j) *Gramna* (*Panicum antidotale*).
- (k) *Dhamasa* (*Fagonia cretica*).
- (l) *Kanti* (*Tribulus terrestris*): Eaten by camels.
- (m) *Lolru* (*Digera arvensis*).

Among the important annuals, mention must be made of the *tumba* or *tus* (*Citrullus colocynthis*). This creeper is found all over the district after the rains. The fruit, which is almost the size of a tennis ball and grows in very large numbers, is very bitter but is

collected for the seeds, which are eaten by animals and also by human beings in time of scarcity.

Forests

Areas demarcated as forest land total less than one half per cent of the total area of the district and are found only in Siwana and Shiv tehsils. The part they play in the economic life of the district is negligible.

The tehsil-wise forest area is as follows (1959-60 figures):—

Tehsil

Barmer	—
Pachpadra	—
Shiv	23,760 acres.
Siwana	5,396 acres.
Chohtan	—

Siwana, the least dry tehsil, has a reserve forest round Chhappan-ka-Pahar. There is no organized exploitation of this forest. In other areas, the wood, fruit and leaves of trees are utilized by the local population according to needs.

The classification as forest of an area in Shiv tehsil is rather misleading. There is no forest here as yet but an attempt is being made to afforest a belt about 40 miles long from Gadra Road station northward up to the border of Jaisalmer. This forest belt, if successful, will act as a barrier to the spread of the desert. The work is being done under the supervision of the Chief Research Officer, Desert Afforestation Research Station, Jodhpur. Details are given in chapter IV.

FAUNA

Animals

The fauna is rather varied, but less so than in the neighbouring districts of Pali and Jalore, where many species find shelter in the forests of the Aravalli. Lions have been extinct for about 100 years and only an occasional tiger has been seen of late in the eastern hills. Panthers are still to be found in the hills but in decreasing numbers, and the same may be said of hyaenas. The wild pig is fairly numerous in the region east of the Luni. Wolves were at one time very common and were much dreaded by the people, but the number of packs appears to have dwindled. Among the species of deer, *sambhar*

(*Cervus hippelaphus*) and *chital* (*Cervus axis*) are found only in the eastern hills in very small numbers and the black buck (*Antelope bezoartica*) is not found west of Balotra.

In the whole of the desert region there are, however, large numbers of *chinkara*, the Indian gazelle (*Antelope arabica*). This animal is inquisitive and fairly easy to approach within rifle range and is in consequence shot in large numbers; its flesh is more finely flavoured than that of the black buck. The common Indian hare (*Lepus ruficaudatus*) abounds wherever there are low hills. Other species of wild animals to be seen are the red lynx (*Felis caracal*), the jackal, the wild dog and the desert fox (*Vulpes leucopus*). Camel men are always anxious to kill foxes and jackals, the flesh of which they boil and give to their camels to increase their pace and powers of endurance.

Among the smaller animals are the common striped squirrel (*Sciurus palmarum*), which is found everywhere, the Indian scaly ant-eater (*Manis pentadactyla*) common in the desert, and five varieties of rats and mice, i.e., the desert jerboa rat (*Gerbillus erythraurus*), the brown rat (*Mus decumanus*), the white-bellied house rat (*Mus niveiventer*), the bandicoot (*Mus giganteus*) and the common Indian mouse (*Mus urbanus*). The jerboa overruns the desert and digs up the ground in all directions, making granaries in the sand.

In the desert, snakes live principally on the jerboa. There are four common species of poisonous snake, two belonging to the Colubridae, viz., the cobra (*Naia tripudians*) and the krait (*Bungarus coeruleus*) and two to the Viperidae, viz., the echis (*Echis carinata*) and daboia (*Daboia russellii*). The python is sometimes found in the hills, as is the rock snake, which resembles a large cobra without the hood but is non-poisonous.

The most important of the desert insects is, of course, the locust. Swarms arrive every year, in greater or lesser numbers, from their West Asian breeding-grounds and cross into India via the Sind desert. Locust control has been taken up on the international plane and in India preventive measures are directed by a unit stationed at Jodhpur. While locusts cause great damage to the scanty crops of the district, a greater problem in this area from the national point of view is to prevent them from establishing breeding grounds from whence they may take off for greener parts. Grass-hoppers are also very numerous and do great damage to the crops.

Birds

As with animals, the birds of this desert region are not as numerous as in other more favoured parts. All the more common Indian birds, such as the crow, sparrow, pigeon, myna, blue jay, hoopoe, bulbul, robin, etc., are to be found everywhere, though in greater numbers in the wetter eastern parts. No useful purpose would be served by listing all these common varieties; it is proposed to concentrate on those birds which add a distinctive touch to the fauna of the district, especially the game birds.

Few of the game birds stay in the area throughout the year, both because of the heat of summer and scarcity of water. However, the winter visitants are varied and very numerous, and good small game shooting is always to be had in the cold season.

The Great Indian Bustard (*Eupodotis edwardsi*) may be considered indigenous, as it is found at all seasons when grass is adequate; it would appear to quit the area only in time of absolute famine. In recent years, the numbers have rapidly dwindled and the bird is now protected. The flesh is finely flavoured in the cold months, but tough and coarse at other times of the year.

There are two indigenous species of sand grouse—common sand grouse (*Pterocles exustus*) and the painted sand grouse (*Pterocles fasciatus*). The common grouse is found in numbers in the cultivated fields while the painted grouse frequents low stony hills.

There is only one variety of partridge which is indigenous, viz., the grey partridge (*Ortygornis ponticeriana*). The painted partridge (*Francolinus pictus*) and the black partridge (*Francolinus vulgaris*) are however met within some numbers in Siwana tehsil.

Among the indigenous ducks are the spotted bill (*Anas poecilorhyncha*) and *nukta* or comb duck (*Sarcidiornis melanotos*), but as the *jhils* (marshy ponds) dry up by March in most cases, these ducks usually move to wetter areas and return with the first monsoon showers. Because of the general scarcity of water, these birds are never found in large numbers. Similarly, the migratory ducks such as the gadwall, pintail, wigeon, pochard and teal varieties are to be found only in small numbers during the winter months. Geese are rarely seen. Among the winter visitants are three varieties of imperial sand grouse (*Gutta*). These are: the black-breasted imperial sand grouse (*pterocles arenarius*), the spotted imperial sand grouse

pterocles senegallus) and the painted imperial sand grouse (pterocles alchata). The black-breasted grouse is seen in large numbers between November and February and though one of the finest of game birds is renowned for its capacity to carry shot. The other two varieties are easier to kill but are smaller and less handsome in appearance.

The lesser or Indian Houbara Bustard (*Houbara macqueenii*) locally called *tilore*, is another visitor which is sometimes found in great numbers. It feeds largely on the fruit of the *ber* tree. It is much prized on account of its size and the delicate gamy flavour of its flesh.

Among quail, the grey quail (*Coturnix communis*) is found in large numbers and the rain quail (*Coturnix coromandelica*) makes its appearance during the monsoon and sometimes stays for the cold weather. The florican (*Sypheotides aurita*) is also a monsoon visitor and disappears before the cold weather has set in. Because the florican feeds on the cantharides beetle (*Cantharis vesicatoria*) only the breast is eaten, as the other parts are said to produce irritation of the urinary system.

Other birds include the crane, both the demoiselle (*Anthropoides virgo*) and common (*Grus communis*) varieties, which are sometimes seen in the winter, starlings and plovers and the Sarus crane (*Grus antigone*) which is a permanent resident and revered by the people as a sign of good omen.

Fish

None of the tanks or ponds in the district is stocked with fish, because of the seasonal character of the water, but individuals do fish for their own enjoyment in the Luni and the lesser streams. The main varieties caught are the *lanchi* (*Bagarius yarrellii*) or fresh-water shark, *sanwal* or *murrel* (*Ophiocephalus marulius*) and the *rohu* (*Labeo rohita*). Erskine has referred to the existence of two other varieties of fishes, viz., *Chilwa* and *Natara* a species of Mullet (*mugil corsula*). There have been occasional reports of crocodiles seen in the Luni.

CLIMATE

The characteristic features of the climate of this district are its dryness, extremes of temperature and the fitful and erratic nature of the rainfall. The year may be divided into four seasons, the winter

season from November to March, the summer season from April to June, the monsoon season from July till mid-September and the post-monsoon season up to the end of October.

Rainfall

Records of rainfall in the district are available for periods ranging between 30 and 70 years for nine stations. Tables 1 and 2 give the statements of the rainfall at the nine stations and for the district as a whole. The average annual rainfall is only 263.7 mm. (10.38"). The rainfall decreases towards the west. Siwana, near the eastern border, gets 344.4 mm. (13.56") of rain in a year while Lakha in the west gets only 187.9 mm. (7.40"). Nearly 90 per cent of the annual rainfall occurs during the period June to September, mostly in association with depressions of Bay origin which reach the district. The variations of rainfall from year to year are very large. During the 50-year period 1901 to 1950, the highest rainfall amounting to 285 per cent of the normal was recorded in 1917. Rainfall was only 26 per cent of the normal, the lowest on record, the very next year. During the same period there were as many as 21 years when the rainfall was less than 80 per cent of the normal. Successive years of low rainfall occurred during the period 1936 to 1939 and 1946 to 1950. The erratic nature of the rainfall in the district will be evident from Tables 1 and 2. For example, Chohtan had 532 per cent of the normal rainfall in 1944 while in 1949 there was no rain at all at this station.

The average number of rainy days (days with rainfall of 2.5 mm. or 10 cents) or more in a year is only 11, taking the district as a whole. The number varies from 15 at Siwana to 4 at Lakha.

The heaviest rainfall in 24 hours, amounting to 355.6 mm. (14.00") occurred at Chohtan on August 26, 1944.

Temperature

The only meteorological observatory in the district is at Barmer. Erskine mentions an observatory at Pachpadra too but it is no longer in existence. The data of this station, which is centrally situated can be taken to be representative of the district. The winter season sets in by November, when both day and night temperatures begin to drop, reaching the lowest values in January. The minimum temperatures often fall below freezing point in January and trees and vegetation are injured by frost. The diurnal range of temperature is large in all months. The drop in temperature after nightfall, especially in winter,

is rather sudden and very trying. Temperatures rise rapidly after March and attain the highest value in May or June. Day temperatures have been known to reach as high as 49°C. (120.2°F) in May. Throughout the summer the heat is intense and scorching winds prevail. With the incursion of the monsoon air in July there is a fall in temperature but, after the withdrawal of the monsoon by the first week of September, day temperatures again increase to a secondary maximum in October.

Humidity

As mentioned earlier, the climate is very dry. Even during the monsoon the air is dry in between the fitful spells of rain.

Cloudiness

In July and August the skies are sometimes heavily clouded and occasionally overcast. During the rest of the year skies are clear or lightly clouded.

Winds

Except during the post-monsoon and winter months, winds are generally moderate. From May to September they are mainly from directions between South and West. In October, the winds are variable, although easterlies and south-easterlies are less common. In November and December they blow from directions between north-west and north-east. From February to April southerlies and south-westerlies also begin to appear and become established as the season advances.

Special Weather Phenomena

Some of the monsoon depressions which form at the head of the Bay of Bengal in July and August and move west or west-north-west reach the district or its neighbourhood towards the later stages of their travel, causing gusty winds and rain. Dust storms or thunderstorms accompanied with squalls occur in the hot season and even in the monsoon months.

Tables 3, 4 and 5 give the temperature and humidity, mean wind speed and frequency of special weather phenomena, respectively, for Barmer based on observatory records.

TABLE—1
Normals and Extremes of Rainfall

Station	No. of years of data	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual	Highest annual rainfall as % of normal (mm) & Year §	Lowest annual rainfall as % of normal (mm) & Year §	Heaviest rain fall in 24 hours* Date
		a	b	a	b	a	b	a	b	a	b	a	b	a			
Barmer	50	a 2.8 b 0.2	3.8 0.4	3.1 0.3	1.5 0.2	9.1 0.7	17.3 1.0	92.5 4.2	112.5 4.6	31.5 2.0	2.8 0.2	0.5 0.1	2.0 0.2	279.4 14.1	336 (1944)	10 (1918)	285.7 Aug., 13 1944
Shiv	50	a 2.0 b 0.2	2.3 0.3	2.0 0.1	0.8 0.1	6.6 0.5	16.8 0.9	73.9 3.0	72.9 3.7	27.2 1.2	2.8 0.1	0.0 0.0	0.3 0.0	207.6 10.1	343 (1917)	5 (1918)	203.2 Jul., 28 1929
Siwana	50	a 2.5 b 0.2	4.1 0.4	3.1 0.2	1.8 0.1	7.1 0.5	30.0 1.5	105.2 4.6	131.1 4.9	53.9 2.0	3.8 0.2	0.8 0.1	1.0 0.1	344.4 14.8	246 (1926)	21 (1904)	190.5 Sept., 10 1905
Gera	49	a 1.0 b 0.1	2.0 0.1	2.5 0.1	1.0 0.1	5.3 0.4	16.8 1.0	93.5 3.6	111.5 4.0	27.4 1.5	4.1 0.1	0.3 0.0	0.3 0.0	265.7 11.0	279 (1917)	17 (1925)	202.2 Aug., 4 1919
Pachpa- dra	50	a 2.8 b 0.2	4.1 0.4	3.1 0.2	1.3 0.2	8.6 0.6	22.6 1.3	84.3 4.0	91.7 4.1	44.7 1.9	5.3 0.2	0.3 0.1	1.3 0.1	270.1 13.3	300 (1917)	21 (1918)	210.8 Sept., 17 1893
Jasol	50	a 2.3 b 0.2	4.6 0.4	2.8 0.3	2.0 0.1	7.4 0.5	19.1 0.9	89.4 3.4	113.8 3.8	36.1 1.6	6.6 0.1	0.0 0.0	0.8 0.1	284.9 11.4	328 (1917)	0 (1937)	193.0 Oct., 26 1917
Baletta	22	a 3.8 b 0.3	4.8 0.3	0.3 0.0	17.0 0.1	3.1 0.3	19.8 1.5	73.7 4.3	136.1 4.6	29.5 1.4	1.3 0.1	2.3 0.1	2.0 0.1	293.7 13.1	265 (1931)	16 (1930)	328.9 Jul., 62 1952
Choluta	50	a 2.0 b 0.1	1.5 0.1	1.8 0.1	0.5 0.0	2.5 0.3	10.2 0.7	82.8 3.3	90.3 3.7	33.0 1.7	4.3 0.1	0.5 0.0	0.3 0.0	238.7 10.1	332 (1944)	0 (1949)	355.5 Aug., 26 1944
Lakha	22	a 0.3 b 0.0	3.1 0.1	0.0 0.0	0.0 0.0	1.0 0.0	7.9 0.4	86.4 1.9	80.3 1.6	8.9 0.2	0.0 0.0	0.0 0.0	0.0 0.0	187.9 4.2	410 (1931)	0 (1947)	205.0 Aug., 30 1931
Barmer (Dist.)	22	a 2.2 b 0.2	3.4 0.3	2.1 0.1	2.9 0.1	5.6 0.4	17.8 1.0	86.9 3.6	105.5 3.9	32.5 1.5	3.4 0.1	0.5 0.0	0.5 0.1	265.7 11.3	285 (1917)	26 (1918)	265.7 Aug., 26 1918

(a) Normal rainfall in mm.

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

§ Years given in brackets.

*Based on all available data upto 1955.

TABLE—2

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

Range in mm	No. of years	Range in mm	No. of years
0—100	5	401—500	2
101—200	14	501—600	0
201—300	16	601—700	0
301—400	8	701—800	2

TABLE—3

Normals of Temperature and Relative Humidity

Barmer

Month	Mean Daily Maximum Temperature			Mean daily Minimum Temperature		Highest Maximum ever recorded		Lowest Mini- mum ever recorded		Relative Humidity 0830 1730 †	
	0C	0C	0C	0C	0C	Date	Date	0C	0C	%	%
January	24.7	10.1	33.3	1949 Jan., 23	1.7	1925 Jan., 15	52	31			
February	27.9	12.9	39.4	1945 Feb., 27	4.0	1957 Feb., 11	52	28			
March	33.4	18.2	43.3	1946 Mar., 30	8.9	1945 Mar., 6	48	26			
April	38.8	23.9	48.3	1958 Apr., 25	12.2	1945 Apr., 2	40	24			
May	41.8	26.7	48.9	1932 May, 24	16.7	1931 May, 31	61	27			
June	40.1	27.1	46.7	1946 Jun., 4	18.9	1931 Jun., 12	60	36			
July	35.0	26.1	44.4	1929 Jul., 6	19.4	1936 Jul., 7	77	53			
August	33.5	24.9	42.0	1958 Aug., 20	20.0	1961 Aug., 25	81	50			
September	35.3	24.3	42.8	1951 Sept., 29	16.7	1935 Sept., 30	73	46			
October	36.6	21.4	42.8	1951 Oct., 1	13.9	1933 Oct., 30	54	29			
November	32.2	15.7	38.2	1957 Nov., 2	6.7	1946 Nov., 29	46	28			
December	26.7	11.7	34.4	1944 Dec., 7	3.3	1936 Dec., 20	51	31			
Annual	33.9	20.3					59	35			

† Hours L. S. T.

TABLE—4

Mean Wind Speed in Km. hr.

Barmer

Jan.,	Feb.,	Mar.,	Apr.,	May,	Jun.,	Jul.,	Aug.,	Sep.,	Oct.,	Nov.,	Dec.,	Annual
7.4	7.6	9.0	10.0	12.1	13.5	11.7	10.1	9.2	7.2	5.3	6.3	9.1

TABLE—5

Special Weather Phenomena

Barmer

Mean No. of days with.													Annual.
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
Thunder	0.1	0.3	0.3	1.3	0.7	1.2	2.0	1.8	1.8	0.7	0.1	0.1	10.4
Hail	0.1	0	0.1	0	0	0	0	0.1	0	0	0	0	0.3
Dust storm	0	0	0.1	1.0	0.4	1.0	0.8	0.4	0.1	0	0	0	3.8
Squall	0	0.2	0.2	0	0	0.1	0.1	0	0	0	0	0	0.6
Fog	0	0	0	0	0	0	0.1	0	0	0	0	0.2	0.3

CHAPTER II

HISTORY

Ancient Period

Only vague reference to the history of the area are available in old writings. However, several important kingdoms flourished at various times and many places in the district which are unimportant today were centres of great activity. These include Khed (near Balotra), Kiradu (near Barmer), Siwana, Pachpadra, Jasol, Tilwara, Shiv and Mallani. Outside the district, but linked to it historically are Bhinmal, capital of the Gurjar Pratiharas (now in Jalore district) which lies to the south, Mandor, the earlier capital of Marwar, to the east, Jaisalmer, where the Bhattis rose to power, to the north and Sind to the west. Names, too, have changed over the years; thus the present Jalore area was Jabalipura, Jaisalmer was Valla Mandal, Mandor was Mandawar, the fort of Jalore was Sonagarh, Barmer was Vagbhatmeru and Kiradu was Kirat-Kup.

Failing authentic written history, the sources from which ancient historical information may be culled are inscriptions on the walls of temples, coins and also bardic literature which, written to extol the valour and virtues of individuals, can scarcely be relied on for accuracy but do at the same time throw some light on the past.

Indus Valley Civilization

No archaeological survey of the area has been yet undertaken but it would not be surprising if traces of Mohenjodaro culture are found. The discovery of 25 such sites in Bikaner to the north-east, a small number in Mirpur Khas and Kahujodaro across the border in Sind and an excavated site to the south-east at Lothal in Saurashtra indicate the possibility of settlements along the course of Luni in early times. Definite links of the Mohenjodaro culture with Rajasthan have been detected and it is possible that lead found in the shape of small dishes, plumb bobs and ingots were brought from Ajmer and the black and white schists used for weights were obtained from the Aravalli hills. Part of the scapula of a camel found at a

depth of 15 feet at Mohenjodaro indicates the possibility that camels were used to cross the desert and, if so, there must have been some settlements in this area.

It is also known that the Aryan settlements in the period of the Rigveda extended at least over parts of Western Rajasthan, some part of Sind, the Punjab and Afghanistan.

Tradition¹

The earliest references to this area in ancient tradition are in the accounts of Manu (originator of the human race after the floods) and his nine sons who are said to have founded kingdoms in different parts of the country. His fourth son, after crossing Rajasthan, settled in the south-east of this area, the kingdom later came to be known as Anarta after one of his descendants. The legend of 'Dhundumar' suggests the subjugation of the aboriginals of southern Rajasthan by Kuvalasva, a scion of Ishwaku of the dynasty of Ayodhya. Afterwards, this area was held by different branches of the Dunar Dynasty, like the Druhus and Yadavas. The latter held this part of this country till the Mahabharata war, in which they sided with the Kauravas. The Bhattis and Johiyas claim descent from this ancient tribe. The Yadava power is said to have declined after a fratricidal war which broke out among themselves shortly after the Mahabharata war.

This traditional account of Aryan expansion is, however, in conflict with the evidence of Vedic texts that in the first millennium B.C. the Aryans had not penetrated much beyond the frontiers of the Punjab and Rajasthan.

This area finds no mention in the Buddhist and Jain texts which refer to the 16 'Mahajanpadas' flourishing in 6th century B.C. It appears during this period, this part of Rajasthan was included in the twentieth province of the Achaemenid empire. K. A. Nilakanta Sastri thinks, on the basis of the accounts of Xenophon and Herodotus, that the twentieth province of the Achaemenids could not have been confined within the narrow limits of modern Sind and that the sandy tract which, in the contemporary Persian accounts, is said to have lain 'east-Ward of India', refers to the deserts of Rajasthan.²

1. Historical Traditions by A.D. Pusalkar "History and Culture of Indian People." Vol. I p.p. 267-319.

2. "Age of Nandas and Mauryas" edited by K.A. Nilakanta Sastri, page 31.

Alexander and the Mauryas

The area does not figure in the records of Alexander's invasion and it is not known when and how it was annexed by Chandra Gupta Maurya. However, if Mr. Sastri's view is accepted, we can surmise that some part of the area may have been included in the Seleucid empire founded on the ruins of the Achaemenid empire. In 304 or 305 B.C., Seleucus entered into a treaty with Chandra Gupta Maurya by which he ceded a number of Satrapies, including Gedrosia (Baluchistan and Sind) and Archosia (Kandahar). We may presume that this area too was included in the Mauryan empire about this period. The accounts of Plutarch and Justin also suggest this. According to Dr. R. K. Mookerji, his (Chandra Gupta's) empire "extended up to Mysore in the south and beyond the natural boundaries of India up to the borders of Persia in the north-west". It was probably a part of the 'Rashtra' then known as Anarta and Saurashtra.

The Mauryan and the Shaka Governors of this area are mentioned in the Girnar rock inscription of Rudra Daman. These names include those of Pushya Gupta (under Chandra Gupta), Yawan Raja Tushaspha (under Asoka) and Pahalava Suvishika (under the western satrap Rudra Daman). References to local democracies in this part of the country have been made by Kautilya in his Arthashastra. The Kshatriya and the Vaishya population of the area were organized in *srenis* and guilds. "There were both economic guilds for the promotion of agriculture, cattle rearing and trade, known by organized in *srenis* and guilds". "There were both economic guilds the technical term *varts* and, what is more interesting, military guilds of professional soldiers who lived in barracks". The subsequent emergence of a number of republics all over Rajasthan, e.g., those of the Malavas, Sibis, Arjunayanas, etc., indicates a continuation of this tradition.

Post-Mauryan Period

Not much is known about western Rajasthan during the later Mauryan period except that it had to face the continual onslaught of the Greeks. References to such attacks have been made in Yugpurana (A portion of Gargi Samhita) and the Mahabhaysya of Patanjali. The expression in the Mahabhaysya "*arunad Yavanah saketam arunad Yavanah Madhyamikam*" clearly refers to the siege of Madhyamika identified with a village called Nagari in Chittor.

W.W. Tarn ("The Greeks in Bactria and India", pages 132-133) holds the view that the invasions referred to were by the forces of Demetrius, who had to make a hasty retreat c. 164 B.C. when, as Yugpuran informs us, "dreadful war had broken out among themselves (the Greeks)". However, others think that this particular expression refers to the later invasion by Menander (155 B.C.). We know from the Shinkot steatite of the Kharoshthi inscriptions (discovered in Bajaur) that Menander held the central parts of Afghanistan, N.W.F.P., Punjab, Sind, Rajputana and Kathiawar and probably a portion of the Western U.P.

Western Satraps

Whatever the date of this invasion, it can be said with certainty that there was considerable confusion in the area from the 2nd century B.C. right up to the establishment of the Western Satrapies. The forces of Demetrius must have clashed with those of Pushya Mitra Sunga, either when he was a Mauryan Governor in Malwa or after he had usurped the throne of the Mauryans (c. 184). Later, when the nascent republics were carving out their states, their progress for a while must have been retarded by another Greek invasion under Menander. However, by the 1st century A.D., the Yaudheyas had annexed large parts of western Rajasthan and the Sibis, Matsyas and Malavas were emerging strong. A local dynasty of Mauryan extraction ruled a limited area round Chittor till the 8th century.

References to an early Scythian invasion of Kathiawar and Malwa and the establishment of a Shaka dynasty in Malwa are found in a mediaeval Jain work, 'Kalkacharya Kathanaka'. Konow and Dr. J. N. Banerjea see in it an early Shaka invasion of these areas in the first half of the 1st century B.C. The same work refers to their uprootal from this area by Vikramaditya. From the 2nd century B.C. we find hordes of Shakaspahalvas moving from Seistan (Persia) to the south and south-western parts of India and, by the middle of the 1st century B.C., they had settled in the lower Indus Valley, later known as Indo-Scythia.

The two main royal lines of Shakas known from the coins of this period are those of Maues in Punjab and the adjoining areas, and of Vonones and his associates in Kandahar (Archosia) and Baluchistan (Gedrosia). These Scythians were later replaced by the Parthians, but both these races were closely related. The Shakas and, after them the Pahalvas, used to govern many of their

Indian possessions in the interior regions of India through strategoi and satraps. The satraps of western India were independent rulers for all practical purposes, owing nominal allegiance to the central power. These subordinate rulers were the principal agents in the expansion of the Shaka power.

The first satrap of the Kshaharata family in Western India appears to have been one Bhumaka, known only from a few of his copper coins which have been found in Gujerat, Kathiawar and Malwa. These satraps were under the over-lordship of the Kushans, who had overthrown the Shaka Pahalava royal dynasty by the beginning of the I century A.D. (Kujula Kadphises 25 to 64 A.D., Wema Kadphises 64 to 78 A.D., Kanishka I, 78 to 101 A.D.). It is likely that, during the Kushana overlordship of northern and western India, Bhumaka was entrusted with the task of administering their western-most conquests. On the other hand, he might have been already ruling there as the satrap of the Pahalavas (House of Vonones) when the Kushanas made themselves masters of this region. Bhumaka was succeeded by Nahapana. Not only did southern Gujerat, northern Konkan from Broach to Sopara, and the Nasik and Poona districts form parts of his dominion but it must have stretched much farther north. Saurashtra (Kathiawar), Kukura, a region in the south of Rajputana, Akara (east Malwa) and Avanti (western Malwa) and even Pushkar in Ajmer in central Rajputana were incorporated in his kingdom. Nahapana seems to have been defeated and killed by the forces of Gautamiputra Satakarni and Chashtana was authorized by the central power to recover the lost satrapal possessions. His son Jayadaman predeceased him, but his grandson Rudra Daman must have been associated with his reconquest of the areas annexed by the Satavahanas. "The place names occurring in the famous Gimar inscription of Rudra Daman show that his rules extended over (1 and 2) eastern and western Malwa, (3) a district on the upper Narmada south of Malwa and on the other side of the Vindhya range, probably the region round ancient Mahishmati, modern Mandhata (4 and 5) the country around the Gulf of Cambay and Kathiawar, (6) northern Gujerat, (7) a portion of Marwar in Rajputana, (8) Cutch, (9) and (10) Sind and some adjacent portion of Western Rajputana (south-west Marwar), (11) Northern Konkan and (12) Nishada (uncertain)".¹

1. Rapson, quoted by Dr. J.N. Banerjee in volume 2 of *Comprehensive History of India*, Page 282. In all probability during this period Barmer was included in the territory under Suvisakha, governor of Anarta and Saurashtra.

He was succeeded by Damaghsada, who in turn was succeeded by Rudrasimha I sometime after A.D. 130-31. The satraps of this family continued to rule in the area till the end of the 3rd century A.D. and the decline of their power after that may have been due to the great expansion of the Sassanian power towards the east; we have definite evidence of a western satrap, Mitrasen, attending the court of the Sassanian king Narseh.

After the Kushans

After the decline of the Kushan power, the tribal states of the Aryanayanas, Uddehikas, Malavas, Sibis and Abhiras, etc., grew powerful in Rajputana about the end of the 2nd and beginning of the 3rd century A.D. They had, however, to acknowledge the suzerainty of the Guptas of Magadha about the second half of the 4th century.

Though parts of Rajputana were under Toramana, no direct evidence is available that he ruled over Barmer.

The Gupta rule over this area or contiguous area is very clear by the distinctive style of the temples at Kiradu, which show the influence of Gupta architecture. Percy Brown, in his book 'Indian Architecture', remarks: "As an instance of the wide distribution of this style (Indo-Aryan and post-Gupta style) in the 11th century, there is an exceptionally rich but severely damaged group of temples at Kiradu in the district of Mallani in Marwar, each temple having many of the characteristics of the Solanki mode. Yet with these may be detected certain Gupta influences, particularly in the pattern of the small turret or Sikhara, and in the more liberal use of the vase and foliage motif, due no doubt to the proximity of the Gupta territory and the still living records of that style."

Harichandra, a Brahmana, seems to have founded the earliest Gurjara Kingdom in the Jodhpur area about the middle of the 6th century A.D. His sons must have ruled over this part of district. The dynasty founded by Harichandra was known as Pratihara.

The Parihara had wrested power from the Mauryas who had supplanted the Nagas. Their capital was Mandor, from where they ruled over the tract up to Kanauj for 300 years, i.e., up to 943 A.D., when the Panwars captured Mandor and later brought Siwana, Shiv, Mallani and Pachpadra under their sway. At the same time, Khed in the Mallani pargana was under the Guhil Rajputs of Mewar.

The Arab invasion of Sind did not greatly affect this area. Al Biladuri writes that Junaid, the Arab Governor of Sind, sent an expedition to the Kingdom of Marwar and Bhinal, but this, if it took place at all, does not appear to have met with any success.

When the Pratihara (Parihar) rule weakened in Kanauj and Marwar, their feudatories, the Paramaras, grew strong, but this rising power was soon crushed by the Solankis of Gujerat. Among the Paramaras, Dharavarsha was an outstanding ruler; his inscriptions are found in Jalore and Kiradu.

Munja, the Paramara ruler, came to the power between A.D. 972 and 974. He wrested from Chahamanas Baliraja Mount Abu and the southern part of Jodhpur up to Kiradu, 16 miles north-west of Barmer. He died between A.D. 993 and 998. His son Chandana was made Governor of Jalore and his nephew Dusala was placed in charge of Bhinmal.

11th Century

At the time of the expedition of Mahmud of Ghazni, the Pratiharas, Solankis, Paramaras and Guhils held the areas of Mallani, Khed, Siwana and Kiradu. Pachpadra was at first in the hands of the Panwars (Paramaras) but later it was occupied by the Chauhans and then the Guhils. The same was the case with Shiv and Mallani. Many scholars hold that the pargana of Mallani derived its name from the Malli, Malloi or Malava clan. Such people include Vincent Smith who wrote, in his 'Early History of India', that in 325 B.C., when Alexander invaded India, the Malloi caste fought against him. At that time this clan resided on both sides of the river Ravi in the Punjab and Sind and spread from there to Marwar and Malwa. The area on the edge of the Daccan plateau ruled by the Malava clan began to be called Malwa and the province in Marwar which they inhabited Mallani. It is possible that, being ruler of this tract, Rao Sulkhaji Rathor named his son Mallinath. Other historians conclude that the place was called Mallani after Mallinath. Whatever the case, the pargana of Mallani included Jasol, Sindhari, Mhewa, Barmer and Gura.

Historians differ about the route followed by Mahmud of Ghazni on his expedition on Somnath and way back. D. C. Ganguli in 'Struggle for Empire' writes: "In the course of his wearisome journey, the Sultan first reached Ludrava, modern Lodorva, 10 miles north-west of Jaisalmer, which was defended by a strong citadel and

a body of brave soldiers. The Sultan captured it and then, after a prolonged march through Mallani, reached the Chikudar hill, which is identified with Chiklodarmata hill, 17 miles north of Palanpur."

The raids of Sultan Mahmud, though destructive of life and property, led to no permanent results except the conquest of the Punjab. The Hindu kingdoms of the north survived the terrible catastrophe. More serious was the invasion of Mohammad Ghori towards the close of the 12th century. The principal Hindu powers of Northern India about this time were the Tomaras of Delhi, the Gaharwars (afterwards known as the Rathors) of Kanauj and the Chauhans of Ajmer.

After the death of Jayasimha, some time between 1143 and 1145 A.D., Kumarapala secured the throne of Gujerat for himself. The inscriptions of reign of Kumarapala (Chalukyas) reveal that his kingdom extended up to Barmer in Mallani, Pali and Jodhpur and Chittor in Udaipur. Kumarapala handed over Kiratkupa (Kiradu) and some other territories to the Chahamanas Ahldana. Meanwhile, the Chauhans had been advancing in Jalore and Kiratipal Chauhan subdued the fort, then known as Sonagarh. His descendants were later known as Songara Chauhans. These Songara Chauhans ruled over Mandor and Barmer. They conquered Kiradu from the Paramaras in 1161 A.D.

Before the battle of Tarain, Mohammad Ghori had left marks of his pillage here. D.C. Ganguli writes: "His (Mohammad Ghori's) mission to establish an alliance with the Chauhan King miserably failed. Muizzuddin Mohammad reached Kiradu, near Barmer, in Marwar in 1178 A.D. and plundered the temple of Somesvara there. He then took possession of Nadol, the capital of the collateral branch of the Chauhans."¹ Some expeditions were also probably undertaken into Rajputana which compelled the Chauhans of Nadol to migrate to safer places. Nevertheless, Aibek could not establish a firm and lasting foothold over Rajputana.

In Jalore (Jabalipura), in the 11th century, Vakpati-Munja's son Chandana was king of the Jalore branch of the Paramara family. He was followed in succession by Devaraja, Aparajita, Vijjala, Dharavarsha and Vishana (1117 A.D.). The last known king of the family is Kumtapala, who had to surrender Jalore to the Chauhan Kiratipal of Nadol, as mentioned earlier.

1. The Age of Prithviraja III by D.C. Ganguli, p.206 'The Struggle for Empire'.

Udayasimha

Samar Simha succeeded his father Kiratipal in Sonalgarh. His inscriptions bear the date 1182 A.D. His son Udayasimha came to the throne after him. It appears that he ruled from 1205 to 1249 A.D. and seems to have been a strong ruler for he asserted his supremacy over Nadula, Jabalipura, Mandavyapura, Vagbhatmeru, Surachanda, Ratahrada, Kheda and Satyapura. Mandavyapura is Mandor, Vagbhatmeru is Barmer, Surachanda remains Surachanda, Ratahrada is Raddhuda in Mallani, Kheda is Khed and Satyapura is Sanchor. Udayasimha's territory thus extended from Mandor to Sanchor and from Mallani to Godwar. Iltutmish invested the fort of Jalore between 1211 and 1216 A.D. but Udayasimha, who capitulated after strenuous resistance, was allowed to retain his territory by the Sultan. He was succeeded by his son Chachiga (before 1262 A.D.) who claims to have destroyed the power of the Vaghela Viramadeva of Gujerat.

After the defeat of Prithviraj at the battle of Tarain in 1192 A.D., the Muhammadan power began to rise rapidly. Raja Jaichand of Kanauj fell before the Muslim arms at the battle at Chandwar in 1194. After his fall, his clan was scattered and his grandson Siha, along with some Rathor followers, retired to Marwar, conquered Khed in Mallani district and the whole of Pali district and planted the "standard of the Rathors amidst the sandhills of the Luni in 1212". According to Reu, after Jaichand's death his son Harish Chandra ruled for some time in Banaras and Siha retired to Khor and Mahni (Farrukhabad district). Later, Siha advanced into Marwar. Dr. S. K. Banerjee and Tod believe that Saitram and Siha were brothers whereas Ojha is of the opinion that Siha was the son of Saitram. Whatever the truth, it is beyond doubt that Siha was a scion of Jaichand's family.

Origin of Rathors

We may digress here to say something of the controversy that exists over the terms Rathor, Rashtrakuta and Gaharwar. Fleet suggests that the term Rathor is derived from Rashtrakuta and so the Rashtrakutas may be connected with the Rajputana—Kanauj country, which seems to have been the original habitat of the Rathor clan of the Rajputs. Dr. Altekar, however, is of the opinion that since the term Rathor came to notice much after the Rashtrakutas began to rule in the Deccan, it is possible that the Rathors may be descendants of some members of the Rashtrakuta families left behind in Northern India during the campaigns of Dhruva I, Govind III, Indra III and Krishna III.

C. V. Vaidya holds that the Rashtrakutas were captains of the Aryan army who parcelled out the districts of Maharashtra among themselves.

It has now come to be believed that the words Rashtrakuta, Rathika, Rashtriya, Rashtrapati, etc., were used to denote local chiefs, district officers, etc. The term possessed merely political and administrative significance and none of them was used to denote any tribal or ethnic stock. It was some time in the last decade of the 9th century that the rule of the Gujerat Rashtrakutas came to an end and the Rashtrakuta empire itself fell in December 973 A.D. The Rathors may have been descendants of this class.

Gaharwars

There is also a controversy concerning the connection between the Rathors and the Gaharwars. The Rathors of Jodhpur consider themselves Solar race Rajputs whereas the Gaharwars regard themselves as a Lunar race, though descended from Jaichand. The Rashtrakuta Kings of Malkhed were Lunar race Rajputs. C.V. Vaidya believes that the term Gaharwar was not the clan name but a family name based on residence. The strongest reason for this supposition is that this name does not appear in the list of 36 royal clans of India accepted throughout the Rajput world. If Gaharwar had been a clan name, it would most assuredly have been enumerated. Vaidya is of the view that the Gaharwars of Uttar Pradesh and the Rathors of Jodhpur are one clan, i.e., Rashtrakuta.

Death of Siha

Returning to the narrative, Rao Siha is said to have come to Marwar in 1212 A.D., though Reu gives this date as 1226 A.D. and an inscription found in Pali district at a place called Bithu gives the date as 1235 A.D. He married a Solanki princess and, from Pali, occupied the land of the Gohils of Khed. Ojha, however, disagrees. He is of the opinion that Siha lived and died at Pali. He says it was Siha's son Soning who took Khed from the Gohils and cites in support an inscription found at Nagar. About Siha's death, the inscription at Bithu says: "On monday, the twelfth day of the dark fortnight in Kartika 1330 V.S. (1273 A.D.) Rathada Siha, son of Sri Seta Kumara, died. May the bliss of Indra's heaven be for Solanki Parvati" (Parvati became a Sati).

Siha had three sons—Asthan (or Asvatthama), Soning and Ajmal. Immediately after the death of Siha, Khed was regained by

Pratapsingh, the son of Swami Kalyan of the Gohil clan. The Gohils of this Jagir were the bodyguards of the Solanki Raja of Gujarat (Sahjig, the son of Sahar, was bodyguard of Sidhraj Jaisingh from 1093 to 1142 A. D.). Asthan is said to have re-taken Khed from the Gohils through treachery. Nainsi says that the Gohil ruler's chief minister was Asha, a Rajput of the Dabhi race. He was not on good terms with his master and, perceiving that Asthan was a rising star, he made a secret agreement with him. The Gohils invited Asthan to a feast, at which the minister made a speech during which he recited the couplet "*Dabhi dave, Gohil Jeevane*", i.e., the Dabhies are sitting on the left and the Gohils on the right. This was a signal for the Rathors to fall on the Gohils who, being taken by surprise, were utterly routed.

According to the inscription found in Nagar, Khed was taken by Soning and not by Asthan. Possibly Soning fought under the direction of his brother. The exact date of the death of Asthan is not known.

Asthan left eight sons, who became heads of clans known as Duhar, Jopsi, Khampsao, Bhopsu, Dhandhal, Jethmal and Uhar. Duhar succeeded his father. Nainsi gives the year of his succession as 1191 A.D. (V.S. 1248, Jyaistha Sudi 13) which is obviously wrong. Possible he meant V.S. 1348. He brought an idol of the goddess Chakreshwari from Karnatak and enshrined it in the village of Nagana, which later came to be known as Nagnechi. Tod says that he made an unsuccessful effort to recover Kanauj and then attempted to wrest Mandor from the Parihars. He failed, but "watered their lands with blood". He died in the village of Tingari (Tirsingri) in Pachpadra during a battle against the Parihars in 1309 A.D.

MEDIAEVAL PERIOD

Allauddin Khilji

By this time the Khilji dynasty had supplanted the Slave dynasty at Delhi and the Sultan had been increasing his power more rapidly than his predecessors. Expeditions against Jalore and Mandor had already been made in the time of Outbuddin Aibek and Iltutmish. It was, however, during the reign of Allauddin Khilji that, between the years 1305 and 1311 A.D., extensive parts of western Rajputana were subdued and Jalore, Nadol, Siwana, Bhinmal and Sanchor came under the Delhi Sultan's sway.

The powerful chief of Siwana, Sital Dev held out against the Khilji troops for several years till, in 1308, Allauddin marched in person against him. For months the Rajputs bravely defended their fort but resistance was finally overcome. In the Tarikh-i-Alai we are told that in July 1308 Allauddin set out on his expedition against Siwana, "a fort situated on an eminence, 100 *parsangs* from Delhi and surrounded by a forest occupied by wild men, who committed highway robberies, Satal Dev, a *gabr* (pagan), sat on the summit of the hill fort like the *simurgh* (a fabulous bird) on the Caucasus, and several thousand other *gabrs* were also present, like so many mountain vultures. The Western Mangonels were placed under the orders of Malik Kamal-ud-din Garg (the Wolf) and some of the garrison, in attempting to escape to the jungles, were pursued and killed. A few days later, Satal Dev was slain and the king returned to Delhi."

Sital Dev was slain while attempting to flee to Jalore (November 11, 1308). The king returned to Delhi, after having installed Kamal-ud-din Garg as Governor of Siwana. Allauddin's military activities in Rajputana were completed by the subjugation of Jalore. He also plundered a part of Jaisalmer. At Jalore, Kanhar Deva was defeated and the whole of the area became part of the Muslim dominion.

Raipal

After the death of Dhuhada in 1309, his son Raipal succeeded to his dominions. The first thing he did was to avenge the death of his father and slay the Parihar of Mandor, which he occupied for some time. The Khyat of Jodhpur State says that he was called Mahirelan (Indra) because he saved the lives of thousands when a severe famine occurred. He conquered the thikana of the Panwars, namely, Barmer, with 560 villages and donated all the plunder to a man named Manga, who was the court bard. Ojha rejects the view that he conquered Barmer from the Panwars because, according to him, at this time the Chauhans were ruling over the area.

Raipal had 13 sons who set themselves up in various parts of the region. He himself was succeeded by his son Kanhad (Kanhah) at Khed. Bhim, the eldest son of Kanhad, was a renowned warrior but was killed in a fight with the Bhattis of Jaisalmer near the river Kak. Though Bhim was killed, the Rathors were successful and some of the territory of Jaisalmer was acquired. The following couplet celebrates this victory:—

आधी बरती भौव, आधी लोदरबं धनी ।
काक नदी छे सीव, राठौडा ने भटिया ॥

(Half of the land belongs to Bhim and the other half to the master of Lodorva (i.e. the Bhattis). The Kak river is the boundary line between the dominions, of the Rathors and the Bhattis).

Later, Muslim forces attacked Mhewa and plundered the place. Kanhad offered stout resistance but was killed.

Jalansi, the second son of Rao Kanhad, succeeded his father and subdued the Sodha Rajputs. He was killed in 1328 while attempting to avenge the death of his uncle, whom Haji Malik had slain in battle. On his death-bed he told his son Chhada that the Sodhas had not kept their pledge to pay him tax and he extracted a promise from Chhada that he would realize the tax.

Chhada

The first task that Chhada undertook after his father's death was to punish the Sodhas. He led a punitive expedition against the Sodha chief Durjanlal, defeated him and realized the tax four-fold. He also ravaged Pali, Sojat, Bhinmal and Jalore. Chhada then marched against Jaisalmer and the Bhattis, hard pressed, saved their lands only by offering a princess in marriage to Chhada. About him Tod writes: "Chhada and Thida (his son and successor) are mentioned as very trouble some neighbours in the annals of the Bhattis of Jaisalmer who were compelled to carry the war against them into the land of Kher". In the expedition against Jaisalmer, Rawal Jaitsi (son of Tejrao) offered stout resistance but the Bhattis could not withstand the Rathor might. In the same year (1344 A.D.) Chhada attacked Umarmkot, where he died.

Tida

Rao Tida, son of Chhada, succeeded him and conquered the entire territory of Mhewa and Bhinmal. At the same time, Satal was ruling over Siwana. When the forces of Firuz Shah Tughluq attacked Siwana in 1357, Satal sought help from his relative Tida, but in the battle that followed Tida was killed. About him is written a famous couplet that he enjoyed sovereignty over five Raos—the Songara Chauhan of Bhinmal, the Devada of Sirohi, the Balisa of Kot, the Bhatti and the Solanki. Tod writes about him: "Rao Tida took the rich district of Bhinmal from the Songara and made other additions to his territory from the Deoras and Balechas".

After the death of Tida, his son Kanhad Dev occupied Mhewa. His brother Salkha had been carried away by the Muslims to Gujerat

and all efforts to rescue him from their clutches failed. At last, two priests named Bahad and Beejad reached Gujerat disguised as minstrels. They played for the Sultan who, as a reward, released the prisoner on their intercession. Salkha was given the Jagir of Mhewa and died defending it against a Tughluq expedition. The whole kingdom was subsequently over-run, but after some time Khed was recovered by Kanhad, who made Bhiradkot his capital. Malla (Mallinath) the eldest of the four sons of Salkha, took up his abode with his uncle, Kanhad Dev.

Following the conquest of Mhewa, Firuz Shah Tughluq sent his men to realize tax from the area. Kanhad, however, decided to resist and had all the tax gatherers killed except their leader. This man was spared at the instance of Mallinath, who went to the extent of escorting him to Delhi. The Sultan was pleased with Mallinath's conduct and he gave him Mhewa in Jagir.

Kanhad died and was succeeded by his son Tribhuvansi, whereupon the ambitious Mallinath appealed to Delhi for help. With the assistance of the Muslim forces, he defeated Tribhuvansi in 1374 A.D. Tribhuvansi was severely wounded in the battle and it is said that his own brother, Padamsingh, hastened his end by putting poison on his wounds. After his victory, Mallinath entrusted the fort of Siwana to his brother Jaitmal and the Jagir of Bhiradkot to another brother, Viram.

Mallinath

Mallinath had a thirst for power. He subdued the neighbouring Bhomias, led expeditions against Umarmkot and proved to be a troublesome neighbour to the Muslim ruler of Mandor. In 1378, the latter raided his territory but met with a severe reverse. Mallinath's territories extended to Sind in the west and Jaisalmer in the north. He sent a contingent under his nephew Chunda (son of Viram) to Mandor and in 1394 this too was annexed.

Khemkaran, another nephew of Mallinath (son of Jaitmal) wrested Gura and Nagar from Sina, chief of the Soras in 1397. There is a story that Khemkaran overcame the Soras by treachery with the assistance of Sina's wife, whom he then married. Their descendants still reside in Nagar and are known as Udhania Rajputs. After their defeat, the Soras migrated to Sind.

Mallinath died in 1399 A. D. Ojha concludes that he conquered the whole of the area which later became known as Mallani. He was the first chief of the area to take the title of Rawal. Legend has it that he was possessed of divine powers and the goddess herself appeared before him. There is a temple dedicated to Mallinath at Tilwara on the right bank of the Luni near Balotra. His success against the Muslims is commemorated in numerous songs current in Marwar which describe how he brought away perforce the daughter of his Muslim enemy.

The rulers of Jodhpur are the descendants of Mallinath's brother Viram.

Mallinath had nine sons—These were (1) Jagmal, (2) Jagpal, (3) Kumpa, (4) Meha, (5) Chundrao, (6) Adval, (7) Udaisi, (8) Ardakmal and (9) Harmu.

Jagmal

After Mallinath's death, his eldest son Jagmal became ruler of Mhewa and his descendants came to be known as Mahechas. Jagmal eloped with Gindoli, daughter of the Muslim ruler of Gujerat. The Gujerat forces thereupon invaded Mhewa but were repulsed. Jagmal later murdered his uncle Jaitmal with a view to annexing Siwana but he did not succeed.

One of Jagmal's wives was the daughter of Manja, a leader of the Chauhans. By her, Jagmal had a son named Mandlak. Following a quarrel, the Chauhan left him and, accompanied by her son, returned to her father, who gave her a village, which was called after her and is still known as Ranigaon. Jagmal then summoned a number (said to be about 200) of his followers and instructed them to go to his wife and son and give out that they too had quarrelled with him and left his service. Some time after, Jagmal followed them with a band of packed men on the pretence of bringing back his wife and son. On arrival at Juna, he attacked and killed his father-in-law, and added the area now roughly coinciding with Barmer tehsil to his possessions. An old rhyme is still current in Marwar which, it is said, was often quoted to Manja by the bards:

"Manja: you may as well place your trust in a tiger's whelp as in the offspring of Jagmal. Put him away from you, or he will one day kill you".

After the death of Jagmal, his sons and descendants set up as many as 18 petty chiefships in Barmer and the contiguous area.

Jodha

Viram, the brother of Mallinath, ruled over Bhiradkot. After his death he was succeeded by his son Chunda who, as stated earlier, had conquered Mandor. Chunda died in 1423 A.D. and was at first succeeded by his second son Kanha, but the latter's rule ended abruptly when Jagmal, the eldest son, returned from Chittor and occupied Mandor. After Jagmal's death, his son Jodha, after passing through various vicissitudes acceded in 1438 A.D., founded Jodhpur and transferred his capital to the new city from Mandor. In the year 1461, Rao Jodha went on Gaya on pilgrimage. While he was away, Apamal, ruler of Bhadrajan, promised Jodha's son the fort of Siwana and, with his help, killed Siwana's ruler Vija. However, instead of redeeming his promise, Apamal occupied Siwana himself. As soon as Vija's son Devidas heard of his father's murder, he rushed to Siwana and re-captured it and then attacked Bhadrajan and killed Apamal. However, before the death of Jodha in 1488, large tracts of Siwana had become part of Jodhpur territory.

Maldeo

About this time (close of the 15th century) the fort of Siwana became a citadel for princely fugitives from several kingdoms, more so after the battle of Khanua (1527 A.D.) which was a black day for the Rajput principalities. Their military power was crippled, but it was not broken till Rao Maldeo of Jodhpur's invitation to Humayun incurred the displeasure of Sher Shah and brought most of Marwar under Muslim dominion.

In 1538, Maldeo sent his forces against Siwana. At first its ruler, the Rathor Dungarsi, was able to hold out, but then Maldeo himself invested the fort, threw a cordon round it and starved the defenders into submission. There is an inscription in the fort commemorating this victory. A gifted soldier, Maldeo extended his dominions by conquering Sojat, Nagaur, Ajmer, Merta, Jaitaran, Bilara, Bhadrajan, Mallani, Siwana, Pachbhadra, Didwana and Bali.

After his defeat at Sumel in Jaitaran in 1543, Maldeo retired to Siwana and Sher Shah occupied the territory from Ajmer to Abu. Sher Shah could only defeat Maldeo through the device of causing letters to be written to himself as from Maldeo's nobles promising that they would deliver their master into his hands, and having these letters enclosed in a silken bag and dropped near Maldeo's tent. (Cambridge History of India Vol. IV p. 54). Jodhpur itself remained

under Sher Shah for 524 days and it was only after the latter's death in 1545 that Maldeo, taking advantage of the confusion that followed, attacked the Muslim posts at Mandor and Jodhpur and regained possession of his territory.

In 1551, Maldeo attacked Barmer and Kotada. The ruler, Swami Bhim, fled to Jaisalmer, whence he returned accompanied by Har Raj and a battle was fought at Barmer, the result of which is not clear. Maldeo, however, continued his policy of conquest and wrested Chohtan from the Panwars. He died on November 7, 1562, at Jodhpur.

At his death, Maldeo's dominions covered a wide area. In the north they extended up to Hansi and Hissar, in the east up to Jangal (Nagaur area), in the west up to Sind and in the south up to Palanpur. Maldeo was known as the 'King of the West'. He subjugated a total of 52 kingdoms and chiefships.

Chandrasen

Maldeo had 22 sons. The eldest was Rama, but he had displeased his father and so the throne went to the third son, Chandrasen. Rama appealed to Akbar and, with Moghul help, attacked Jodhpur in 1565 and forced Chandrasen to flee to Siwana. He was temporarily subdued in 1570 at Nagaur but soon threw away the yoke.

Akbar sent Raja Rai Singh of Bikaner in 1572 to subdue Chandrasen. The imperial force included the Moghul general, Shah Kuli Khan, besides certain Hindu rulers such as Keshav Das Mertia (Jaimal's son) and Jagat Rai besides Rao Rai Singh. Kalla (Chandrasen's nephew) was defeated at Sojat and the punitive force proceeded towards Siwana. Chandrasen's advisers suggested that he withdraw to the hills for safety and he did so, leaving the fort in the care of his general, the Rathor Patta. From the hills he conducted surprise raids on the imperial army and these, combined with the stout resistance offered by the defenders of the fort, sapped the morale of the besiegers. Rai Singh therefore went to Akbar at Ajmer in 1574 and reported that his mission was a failure. Thereupon Akbar sent a bigger force under Tayyab Khan, Saiyad Begg Tokhai, Subhan Kuli Khan Turk, Khurram, Ajmal Khan, Shivdas and other generals. Chandrasen prudently retreated even further into the hills and the imperial army was unable to bring him to battle.

This second failure incensed Akbar, who is said to have reprimanded his generals. The next year, 1575, Akbar ordered Jalal Khan

to Siwana and sent with him Saiyad Ahmed, Saiyad Hamish, Shimal Khan and other Amirs. Chandrasen decided to attack this army on its way, but his plans became known to the enemy, as a result of which they themselves were able to launch a surprise attack. Chandrasen was forced to retreat, with heavy loss, into the hills, where again the Moghuls were unable to find him. Chandrasen was able to regroup his forces and, falling suddenly on the enemy, killed their leader Jalal Khan.

Akbar now despatched Shahbaz Khan with orders to concentrate on taking Siwana itself. On the way he defeated the Rathors at Dunara. Finding it difficult to take Siwana by storm, he adopted the plan of cutting off supplies and at length starved the defenders into submission. Thus, in 1576, the fort was at last taken by Akbar. Subsequently, the whole area came under Moghul sway and the ruler of Jodhpur became a mansabdar of the Delhi court.

Udai Singh

After the death of Chandrasen, his sons Ugrasen and Askaran fought for the throne and both were killed, leaving the path clear for the eldest son, Rai Singh, who had been away in Kabul in the service of Akbar. Raja Udai Singh succeeded him in 1583.

In 1593, Udai Singh expelled Rawal Viramdeo, a descendant of Mallinath, from Jasol and brought this area under his rule. The same year he inaugurated the now famous annual cattle fair at Tilwara. Udai Singh died in July 1595 and was succeeded by his third son, Suraj Singh, who helped in the conquest of Gujerat and the Deccan and died in 1619. Suraj Singh was succeeded by Gaj Singh.

Gaj Singh died in 1638 and was succeeded by Jaswant Singh I, who took the title of Maharaja. During the year 1643 Mhewa came under Maharawal Jagmal, the son of Rawal Tejsi. Jaswant Singh had a long and colourful reign and died in 1678. He was succeeded by Ajit Singh.

Revolt in Marwar

While Aurangzeb was in the Deccan, the Rathors utilized the opportunity to throw off the Moghul yoke. The Rathor Durgadas reached his *thikana* of Bhimarlai in Mhewa in August 1687 from the Deccan and sent a petition to Ajit Singh to grant him an interview. After some time Ajit Singh went to Tilwara to visit the fair and from there proceeded to Bhimarlai. Durgadas came to him with his

followers and requested that he (Ajit Singh) spend some more time in the hills of Piplod. Meanwhile, the Moghul army was dogging the footsteps of Ajit Singh and his followers and he had to retire to the Chhappan-ka-Pahar, the hills of Siwana. Some historians, however, locate this place in Mewar.

The whole of Marwar by this time was in turmoil. In 1685, the Chauhan Chatur Singh, the Champawats, Karno's and the Udawats banded together and formed two armies. The Champawat Udai Singh was made leader of one and he marched towards Bikaner. The Champawat Sanga, leading the second, plundered Balotra and Pachpadra and marched towards Jodhpur. Purdal Khan, commander of Siwana fort, fled to Kanana in Pachpadra and was killed in a battle there with the Rathors in 1686. The Moghuls, however, regained control of the situation in 1693 when Shujaat Khan reached Marwar with a huge army and captured Jodhpur, Jalore, and Siwana. Jalore, Sanchod and Siwana were granted in 1698 A.D. to Ajit Singh for the hospitality he had shown to Akbar's daughter Safiyat-un-Nisa who had fallen into Durga Das's hands.

Death Aurangzeb

The death of Aurangzeb in 1707 was the signal for the collapse of Moghul power in India. Only three days after his death, Ajit Singh attacked Jodhpur and captured it. The new Emperor, Bahadur Shah, temporarily retook Jodhpur, but it was later restored to Ajit Singh.

During the anarchy which prevailed on the down fall of the Moghul empire, Rajputana suffered in common with the rest of India. At the outset, Jodhpur and Ajmer extended their limits but by the middle of the 18th century the Maharattas had established themselves in Ajmer and thenceforth the Rajput power sank, never to rise again.

BRITISH PERIOD

Following the overthrow of the Maharatta power by the British, in December 1817 a treaty was negotiated at Delhi between the regent prince of Jodhpur and the British Government. Col. Tod was appointed Political Agent and he reached Jodhpur on November 4, 1819.

Except the pargana of Mallani, which comprised Barmer, Jasol, Nagar and Sindhari, the other parganas of this area, namely Shiv, Pachpadra and Siwana, were all integral parts of Jodhpur State. The pargana of Mallani was also claimed by the Jodhpur Darbar and the

troublesome nature of the chiefs of the area, which was on the direct route between Sind and Ajmer, led the British to assume direct control in 1836. Major Malcolm's report in this connection is of interest:

"In the 14th century a separation took place in the Rathor tribe, a portion following the fortunes of Biram Deo (the younger son of Salka Rawal), who subsequently founded the principality of Jodhpur, while the remainder the elder brother, Mallinath, continued to occupy their former position in Mewo, or Mallani as it is now more frequently denominated after Mallinath Rawat, the immediate ancestor of the present Chiefs of Barmer, Jasol, Nagaur and Sindari".

"It is uncertain how long the Rawats of Kher continued to exercise any control over the rest of the chiefs or to be considered as the head of a principality; but, at the period when we first became acquainted with them, all traces of such power had long ceased, and each chief of the principal families into which the tribes are divided claimed to be independent".

"The law of gavelkind, or that by which an equal division of the property of the father is at his death, made among his sons, has long existed among these tribes and to its debilitating effects are to be traced all the evils which have fallen on the community. Dissensions among families, and blood feuds arising out of the minute sub-division of land, led to the assistance of the neighbouring and comparatively powerful chiefs of Jodhpur being frequently solicited, and this gave rise to an interference on which the latter ground their right of sovereignty over the districts at large".

"No treaty or formal contract between the parties can be produced in support of this claim, but the circumstance of the past Rajas of Jodhpur interfering in the settlement of local disputes among the chiefs and levying, for a number of years, an irregular species of tribute on the district, confirms, according to the usage of the country, their right to be considered as the lords paramount of Mallani".

"For many centuries past, the districts of Mallani had been one continual scene of anarchy and confusion, and their inhabitants more savage and lawless than the neighbouring Khosas of the desert. The court of Jodhpur, when called upon to repress their excesses, acknowledged their inability to coerce them. Under these circumstances, the British Government, as conservators of the general peace of India,

found themselves compelled to proceed against them as a public nuisance and, with their own troops, to seize the districts which they occupied. The Jodhpur Darbar having failed to render even the limited assistance which they had promised, the whole trouble and expense of the undertaking fell upon our Government".

"After the occupation of the district, the principal chiefs were removed as prisoners to Kachh, whence they were subsequently released on furnishing security for their good conduct and on the express stipulation, entered into by Sir Henry Pottinger with the chiefs of Barmer in person that, as long as they conducted themselves with propriety, they should be considered under the special protection of the British Government".

"The Jodhpur Darbar, though they had utterly failed, as above stated, to afford any assistance in the reduction of Mallani, were not slow to put forward a claim to its sovereignty. In reply to this demand, it was admitted by Government that the Raja of Jodhpur had for many years exercised a species of control over Mallani, and levied tribute from its chiefs at irregular periods; that such claims as it might have once possessed were rendered null and void by the state of anarchy and confusion into which it had allowed the country to fall; and that, though the British Government had established a claim to the districts themselves, consequent on having reduced them to order and obedience, it was willing, out of kindness and consideration to His Highness, to waive its just rights, and to acknowledge His Highness as entitled to sovereignty over these districts and the tribute they might yield; at the same time, informing him that our interference would not be withdrawn till his Government could afford satisfactory evidence of its capacity to rule them itself".

The arrangements for the control of Mallani are thus described by Major Impey in his Report of 1868:

"Mallani came under British control in 1836, and was managed by a Superintendent on a consolidated salary of Rs. 700 a month. He also commanded a detachment of regular troops, consisting of one squadron of Bombay regular cavalry, two companies of regular infantry and 100 Gaekwar Horse. His headquarters were at Barmer".

"In 1844 this detachment was withdrawn and replaced by 30 horse and 60 infantry of the Jodhpur Region and 150 Marwar Horse. On the departure for England in 1849 of the local Superintendent (Captain Jackson), the district was first as a temporary measure and

and then permanently, placed under the charge of the Political Agent, Marwar.

"In October 1850, on account of sickness at Barmer, the Political Agent arranged with the Officer Commanding the Jodhpur Region to have his own escort at Jodhpur increased to 40 horse and 80 foot, and from it to furnish reliefs for the Mallani Guard, which was then reduced to 14 horse and eight foot, the Mallani prisoners being brought from Barmer to Jodhpur".

"In 1854 this detachment was altogether withdrawn from Barmer, and the military control of the district has since then been left to the contingent of the Darbar Horse, which now consists of 50 men mounted on camels, 50 horsemen and 30 foot-soldiers, with the usual complement of commissioned and non-commissioned officers".

A circumstance worthy of note here is the addition to Mallani of the tract of country now called Takhtabad, after the late ruler of Marwar, Maharaja Takht Singh, which is thus described by Major Impey:—

"In the south-west corner of Mallani, where it marches on Sind, there is a strip of district, about 50 miles long and seven broad, known as Takhtabad. It comprises 29 villages, some of them consisting of only a few huts, collected round a pool, or well of fresh water, and which more properly should be styled hamlets, the nucleus, we may hope of future villages".

Mallani was completely integrated with Jodhpur on August 1, 1891. The administration was at the same time re-organized and Hakims were placed in charge of each hakumat in the area now comprising the district, viz., Pachpadra, Siwana, Shiv and Mallani.

With the integration of Mallani, the history of the area merges into that of the former Jodhpur state.

CHAPTER III

THE PEOPLE

*Population***Total Population.**

The total population of the district in 1961, according to the provisional Census figures, was 648,734. The distribution among the various administrative units was as follows:—

Unit	Area		Population		
	Sq. miles	Males.	Females.	Total.	
District	10,333	347,300	301,434	648,734	
<i>Sub-Division</i>					
Barmer	8,289	255,670	219,344	475,014	
Balotra	2,044	91,630	82,090	173,720	
<i>Tehsil</i>					
Shiv	2,448	30,948	25,021	55,969	
Barmer	4,309	158,725	138,055	296,780	
Pachpadra	1,284	51,488	45,998	97,486	
Chohtan	1,532	65,397	56,268	122,265	
Siwana	760	40,142	36,092	76,234	

Growth of Population.—The density of population for the district as a whole is 63 persons per square mile. At the time of the 1951 Census the density was 43 per square mile and in 1941 it was 36. The density is greatest in Siwana tehsil, where it is 100 per square mile and least in Shiv tehsil, where there are only 23 persons per square mile. The mean density of population for Rajasthan as a whole is 153 persons per square mile. Even the most populous tehsil of the district falls far short of this figure.

There has, however, been a steady growth of population in the area now forming this district since the 1931 Census. Earlier in the

century there was actually a decrease recorded in successive decades, due largely to the terrible famine at the turn of the century and a series of lean years thereafter which led to migration on a large scale. Thus, whereas in 1901 the population was (about) 315,000, the number dropped to 301,000 in 1911 and further to 283,000 in 1921. By 1931 there was a partial recovery to 310,000. Thereafter the population rapidly increased to a figure of 397,000 in 1941 and 480,000 in 1951. The 1961 Census population figure of 649,000 represents an increase of 35.2 per cent over that of 1951. Only one district in Rajasthan—Ganganagar—reported a higher percentage increase and the phenomenal growth of population there (an increase of 64.6 per cent) was due to unusual circumstances which need not be discussed here.

The figures given above for previous Census Reports are on the basis of the present composition of the district. Thus the actual population of Barmer District in 1951 was 4,41,368, but in 1954 a new tehsil of Chohtan was created comprising a portion of Barmer Tehsil plus the police station areas of Sedwa and Bhakasar, which had previously been attached to Jalore District.

The position is summed up in the following table:—

Variation in population

					increase (+) or decrease (—) in per cent.
1901-1911	..	..	..	..	—4.2
1911-1921	..	..	..	..	—6.0
1921-1931	..	..	..	..	+9.5
1931-1941	..	..	..	..	+27.9
1941-1951	..	..	..	..	+20.9
1951-1961	..	..	..	..	+35.2

Emigration and Immigration.—Figures showing the number of persons born outside the district but residing therein in 1961 were not available at the time of writing, but broad conclusions regarding emigration and immigration may be drawn from the 1951 Census figures. In that year, of a total population of 4,41,368, 87.5 per cent or 3,86,163 persons (2,05,738 males and 1,80,425 females) were born in the district itself. A total of 46,746 persons (26,041 males and 20,705 females) were born in other districts of Rajasthan of whom 43,238 persons (24,162 males and 19,096 females) were born in the adjoining districts, namely, 32,531 persons in Jodhpur, 7,934 in Pali and 1,246 persons in Jaisalmer district. Only 3,488 persons were born in far off districts of Rajasthan. Of these, Bikaner accounted for 1,427 persons and Udaipur for 951.

The number of persons born outside Rajasthan in other parts of India was 1,587 (813 males and 774 females). Of these, 1,481 persons were born in adjacent states, 1,100 coming from Bombay and 135 from Ajmer, then a separate Part C State.

Persons born outside India numbered 6,872 (3,568 males and 3,304 females) of whom all but four came from Pakistan as displaced persons.

These figures do not give a completely accurate picture of migration because of the custom, prevalent throughout India, for young married women to return to their paternal homes for confinement, many of the future inhabitants of a district being thus born outside its limits. It has also to be remembered that the Census statistics portray conditions existing at a fixed moment once in ten years and thus take no account of movements of population in between under stress of adverse circumstances or for any other reasons. However, the fact that nearly nine-tenths of the population were born within the district itself points to the fact that there is very little immigration and that, too, largely from the surrounding districts. The cause is not far to seek as this is an inhospitable desert area with little to recommend it to would-be immigrants. As regards emigration, in spite of the fact that life is hard, this is not a noticeable feature. There is, of course, the annual migration of herders to greener parts in the spring but, unless there is a complete failure of the monsoon, they generally return by August. Also, there is some emigration to neighbouring districts where living conditions are similar as well as a trickle of persons seeking employment elsewhere, where opportunities are greater.

Urban and Rural Areas

In the Census of 1951, three towns were listed in the district—Barmer, with a population of 20,812, Balotra, with a population of 9,637 and Pachpadra, with a population of 2,318, making a total urban population of 32,767. In the 1961 Census, Pachpadra has not been classed as a town and the urban areas are thus confined to Barmer and Balotra. Barmer has a population of 27,601, comprising 14,892 males and 12,709 females. The increase of population is due in large measure to the setting up since 1951 of several district offices and the natural gravitation of population to the district headquarters. Similarly, the population of Balotra, a sub-divisional headquarters, has gone up from 9,637 in 1951 to 12,112, comprising 6,443 males and 5,669 females. Thus the total urban population in 1961 was 39,713 as

compared to 30,449 (excluding Pachpadra) in 1951—an increase of about 30.4 per cent, as compared to the figure of 35.2 per cent for the district as a whole.

At the time of the Census of 1951, the rural population totalled 408,601 or 92.6 per cent of the total population of the district. By 1961, the figure had risen to 609,021, an impressive increase even after taking into account the fact that 117 villages were acquired from Jalore District in 1954. The distribution of the rural population, tehsil-wise, is as follows:—

Tehsil	No. of villages	Males	Females	Population
Shiv	74	30,948	25,021	55,969
Barmer	378	143,833	125,346	269,179
Pachpadra ..	158	45,045	40,329	85,374
Chohtan	146	65,997	56,268	122,265
Siwana	89	40,142	36,092	76,234
TOTAL	845	325,965	283,056	609,021

In 1961, only 6.12 per cent of the total population was urban, the reason being that there are no large industries or important trade centres to attract large groups of people to one spot. The economy of the district being overwhelmingly agricultural and pastoral, the population is grouped round small hamlets wherever water is available for agriculture on a small scale and the needs of human beings and domestic animals. For administrative purposes, several of such hamlets may be grouped together to form a single revenue village. Thus a village may cover an enormous area. This is particularly the case in the true desert tehsil of Shiv, where the revenue village of Sundara alone covers an area of 2,56,000 acres and those of Jai Sindhar and Medusar cover 77,500 and 77,550 acres, respectively. In such villages, agriculturists and herders live in *dhanis* amid their fields or grazing grounds. These *dhanis* may be separated from one another by a few furlongs or even miles. In each case, the revenue village takes the name of some centrally situated hamlet where the population is more numerous and where more facilities, especially water, are available. Inhabitants of the far-flung hamlets come to the central spot only to obtain their necessities and dispose of their produce. This scattering of the population has meant that, in the desert areas, there is little corporate life and works of public utility are few,

though efforts have been made in recent years under the development programme to improve matters. It often happens that small hamlets are abandoned when the water supply fails completely.

Apart from Shiv tehsil, the above description holds true, to a lesser extent in the cases of Barmer and Chohtan tehsils also, except for the area around the Luni river. The tehsils of Siwana and Pachpadra (the former particularly) have less rigorous conditions and the rural pattern of living here is much the same as in the non-desert areas of the State.

Sex Ratio

In this district, as in Rajasthan generally, there are less females than males. In the Census of 1921, the number of females per 1,000 males was 855. The number increased to 890 in 1931 but fell to 869 in 1941; this figure remained the same in 1951 and in 1961 it was 868. Thus, over the past 20 years, the sex ratio has remained virtually unchanged. The sex ratio for Rajasthan as a whole in 1961 was 908.

A break-up of the figures for the 1951 Census shows that, among the economically active population of the agricultural classes, the sex ratio is very low as compared to that among semi-active persons, being 496 females per 1,000 males in the former case and 2,205 females per 1,000 males in the latter. Among inactive or non-earning persons, females are 1,116 per 1,000 males. A similar phenomenon is observable among the non-agricultural classes, but in them the ratio for economically active persons is only 332 females per 1,000 males while that for earning dependants is 1,274 females per 1,000 males. For non-earning dependants, the ratio is 1,385 females per 1,000 males.

These figures are significant in as much as they show that village women are on the whole more economically active than their urban sisters. Their conditions of life are much more arduous.

Age

In the 1951 Census, it was found that infants below one year of age formed 6.67 per cent of the total population, children aged one to four years formed 12.99 per cent, those aged five to 14 formed 28.85 per cent, persons aged 15 to 34 formed 30.74 per cent, those aged 35 to 54 formed 15.37 per cent and persons aged 55 and over formed 5.38 per cent.

The age return is not very reliable, for very few people in the villages know their exact age. However, the age returns are not altogether useless as in any large population errors due to over-statement and under-statement tend to cancel out.

Displaced Persons.

A total of 6,868 persons (3,564 males and 3,304 females) migrated to this district from Sind after the partition of the country in 1947. Though Barmer borders on Sind, the number of displaced persons settling here was low because a large majority of the migrants were towns-people engaged in trade and small industry, for which there was limited scope in this area.

LANGUAGE

The principal local language is Rajasthani which, according to Dr. Grierson's classification, belongs to the Indo-European family, Indo-Aryan Branch, Central Group. Including all its dialects, it was spoken by 4,15,187 persons or 94.1 per cent of the total population at the time of the 1951 Census. Hindi was given as their mother tongue by 13,456 persons and Urdu was the mother tongue of 1,488 persons. Gujarati was spoken by 234 persons and Sindhi by 6,792 persons, almost all of them displaced persons.

The principal local dialect of Rajasthani spoken by the people is Marwari, which in 1951 was the mother tongue of 4,14,150 persons (2,21,756 males and 1,92,394 females). There are, however, regional differences in the use of words. In Shiv tehsil and the adjoining parts of Barmer and Chohtan tehsils, for instance, the dialect is akin to that of Jaisalmer, whereas in Siwana and Pachpadra tehsils and the Gura area of Barmer tehsil, the spoken word is akin to that of Jalore and bears the influence of Sirohi and Gujarat. In the Sedwa and Bhakasar areas of Chohtan tehsil the dialect is similar to that of Sanchores in Jalore district, which in turn is influenced by Kutch.

On the Pakistan border the Muslims of the district speak Sindhi with an admixture of Marwari. As regards the other communities, the Rajputs generally speak the language of the locality, and so do their tenants and retainers like the Meghwals, Bhambis, etc. The Jats, however, speak one dialect even in different localities. Their speech is influenced by the Bikaner dialects.

Among the educated, Hindi is spoken as fluently as Marwari though not used to the same extent, and it is widely understood even among the uneducated.

In government offices and courts Hindi and English are used and in schools Hindi is the medium of instruction.

RELIGIOUS AND SOCIAL GROUPS

Religious Communities.

The bulk of the population (85.6 per cent) consist of Hindus, their total number at the time of the 1951 Census being 3,77,425 (2,01,989 males and 1,75,436 females). These figures include Animists, almost all of whom are Bhils. In the same year, Jains numbered 11,768 (5,905 males and 5,863 females) and formed 2.6 per cent of the population and Muslims 52,027 (28,187 males and 23,840 females) or 11.8 per cent. There were 129 Christians (65 males and 64 females) and only nine Sikhs.

Hindus.—Among the Hindus, Vaishnavas are over-whelmingly predominant. There are two main groups of Vaishnavas, (i) the Vallabh-kul Sampradaya, whose philosophy is *shudha advaita* (pure monism) and who worship Shri Krishna in his child form, and (ii) Mahajans (Maheshwaris and Agarwals) who follow Shri Ramanuj and Ramanand. The followers of Ramanuj worship only Vishnu while those of Ramanand worship Shiva as well. Other Hindu groups such as the Vishnois, Bhambis and Meghwals are described in some detail in the following pages. Among the last two groups are the followers of Ramdeoji, who belonged to the village of Ramdeora (Runecha) near Pokran in Jaisalmer District.

The goddess Vakaldevi is worshipped in the Chohtan area, her followers being mostly Rajputs. There is a temple dedicated to this goddess at Viratra village, about seven miles from Chohtan. Shri Mallinathji, the famous Rathor Chief of Mallani, is worshipped at Tilwara, where a big fair is held every year in his honour. Two other heroes locally worshipped are Pabuji and Harbuji. Pabuji belonged to the village of Kolu near Khed; he is said to have been the first to bring the camel into general use and was also a great protector of cows. Harbuji was a Panwar Rajput of the Sankla sept, who lived at Bengti, near Phalodi.

The salt workers (Kharwals) at Pachpadra worship two sister goddesses, Sakambari and Ashapuri. They have built a temple near the salt works where *melas* are held every year on Bhadon Sudi 14 and Magh Sudi 14. The image of Sakambari has an inscription dated 1514 A.D.

There are *maths* of the Shankaracharya sect in the towns of Chohtan and Barmer. The *sanyasis* bury their dead within the *math* premises. There is also a *math* of the Nath sect in the village of Bhadka on the road from Barmer to Shiv.

Jains.—The two sects of Jains are the *Digambaras*, whose images are unclothed and who assert that woman cannot attain salvation, and the *Swetambaras*, who hold the opposite view regarding women and whose images are clothed and sometimes ornamented. In this area, the great majority of Jains are *Swetambaras*. They are divided into three sub-sects, only one of which, the *Mandirmargi*, are worshippers of images. The Bais Sampradaya and Tera Panthi groups do not hold with images but are much fewer in number than the first sub-sect. Almost all of the Oswal group of the Mahajan community are Jains. The most important Jain temple is that of Nakora Parasanathji.

Muslims.—Among the Muslims, the great majority are Sunnis. There are a few Shiahhs, mostly traders from Gujerat, who are long settled in the area. While the Muslims of the urban areas observe their religious rites in exclusively Islamic fashion, those in the rural areas have not yet completely discarded their ancestral Hindu customs and ideas (large numbers of people were converted to Islam during the Mughal period). Till quite recently, it was general practice for them to command the services of both Muslim and Hindu priests and even today they join in the celebration of the major Hindu festivals.

Christians.—The tiny Christian community is scattered throughout the district and even in Barmer town there are less than half a dozen families. There is not a single church. In the villages the Christians are practically undistinguishable from the Hindus.

Social Groups

The old, time-honoured social classification, based largely on traditional occupations and in some cases on aspects of religion, is still fairly rigid, especially in the rural areas, because of the lack of educational facilities, means of communication and industrialization—all of which help to break down social barriers. Thus there are several distinct social groups in the district, the lines of cleavage between which are more clearly marked than in areas where the impact of modern civilization has been felt to a greater degree.

A new factor of recent origin in regard to social classification has been the division of the population into backward and non-back-

ward classes for the purpose of rendering special assistance to the former group. Thus the Rajasthan Government provisionally declared, for the guidance of the 1951 Census workers, 19 castes or classes as being non-backward, namely the Bohra, Brahman, Chakar, Charan, Dangi Daroga, Darji, Dhakad, Kayasth, Khati, Mahajan, Mali, Mughal, Pathans, Purohit, Rajput, Sayyad, Shaikh and Sutar classes. It does not automatically follow that all the remaining castes or classes are backward. What this declaration meant was that the classes so declared are without doubt non-backward. The remaining castes or classes consist of backward classes as well as marginal cases. The strength of such non-backward classes in the district at the time of the Census of 1951 was 1,65,094 persons (86,801 males and 78,293 females). These figures are misleading, however, in the sense that they cover only those persons who returned any one of the 19 names mentioned in the list as their class or caste. Those who returned any other name which was a synonym or a sectional name of any one of the above castes or classes were not treated by the enumerators as belonging to the non-backward classes, e.g. Joshi, Acharya, Purohit, etc. The figures, therefore, merely indicate the minimum strength of the 19 classes.

Under Article 341 of the Constitution, the President declared 44 castes in Rajasthan as Scheduled Castes. Their number in this district in 1951 was 10,375 (5,150 males and 5,225 females). These figures also are defective in that they do not contain the figures of those persons who returned synonymous or sectional names of any of the castes mentioned above, e.g., Harijan, Jatav and Yadav instead of Chamar, etc.

Sixty castes or classes were similarly declared by the Rajasthan Government to be backward for the purpose of receiving educational facilities. Their strength in 1951 was 55,849 (28,256 males and 27,593 females).

Other caste or clan names found in the Census slips in response to the question regarding social groups were more than 150 in number. Some of them are really synonyms or sectional names of one or more of the castes mentioned in the list referred to above but they were grouped with the backward classes for Census purposes.

Separate population figures for each of the declared non-backward classes were not extracted during the 1951 Census. Figures for

some of the other classes were, however, given as follows:—

Jats	..	..	..	..	..	..	..	93,784
Bhambis	..	..	..	..	..	..	..	18,804
Meghwals	..	..	..	..	..	..	..	16,742
Bishnois	..	..	..	..	..	..	..	16,520
Bhils	..	..	..	..	..	..	..	17,240
Kumhars	..	..	..	..	..	..	..	12,679
Rebaris	..	..	..	..	..	..	..	9,189
Choudharies	..	..	..	..	..	..	..	6,048
Kulbis	..	..	..	..	..	..	..	5,348
Nais	..	..	..	..	..	..	..	4,226

The main social groups, backward and non-backward, found in the district are:

Brahmans.—Their hereditary occupations are religious service in temples, spiritual guidance and education. Being intellectually more advanced, they have all along held high posts in the political and administrative spheres and in some cases the military sphere also. Medicine (Ayurveda) is another branch in which this class of people are numerous.

In this district Brahmans have always been held in great regard. Village and wells have been granted to them rent free (*muafi*) from time to time. Such books on literature, history, poetry, medicine, etc., as are to be found as well as stone inscriptions are attributed to them. Brahmans were generally employed as tutors to the children of the noble class and several of them held high posts in the administration. Some also took to trading and money-lending and came to be known as Bohras. Others who took to architecture and wood-work were similarly known as Khatris, Suthars or Sutradhars.

The principal divisions of Brahmans in the area are the Srimalis, the Sanchoras, the Channiyatis, the Purohits and the Paliwals.

Of these, the Srimalis are the highest in rank. They are said to have come from Gujerat and take their name from the town of Srimal (Bhinmal). They compose two main groups, Marwari and Mewari, the former being hypergamous (i.e., taking, but not giving, daughters in marriage) in relation to the latter. There are 14

exogamous septs or *gotras*, each having one deity or *Kuladevi*. The Srimalis are mostly followers of Shiva. Some have gone into trading and money-lending; others live on charity and beg their daily-bread.

The Sanchoras take their name from Sanchor tehsil of Jalore and are found chiefly in Chohtan tehsil and around Barmer town. They consist of seven *gotras*, belong to the Vallabhacharya sect and are of almost the same status as the Srimalis.

The Channiyatis comprise six endogamous septs of the Panch Gaur Brahmins, said to have been fused with but partial success into one community by Maharaja Swai Jai Singh II of Jaipur in the early part of the 18th century in commemoration of his *aswamedha* or horse sacrifice. These septs can eat together but do not intermarry. The six divisions are (i) the Daimas or Dadhichas, a cultured class which originally came from Manglod in Nagaur district; (ii) the Gujar Gaurs, who claim descent from Gautama Rishi; (iii) the Parikhs, some of whom are, (or rather, were) priests to the Kaimkhanis (Muslims of Rajput origin) while others are cultivators or temple servants; (iv) the Khandelwals, who are said to have come from Khandela in Jaipur and are mostly agriculturists, (v) the Sarsuts, or Saraswats, named after Saraswati, the Hindu Minerva, and whose ancestors are said to have come from Kanauj with Rao Sihaji. They cultivate the land or are in private service and are not very strict in their observance of caste rules; and (vi) the Gaurs, who are not very numerous and are not generally recognized by the other steps as belonging to the Channiyat community of Marwar.

The Purohits or Rajgurus are numerically stronger than any of the other main divisions of Brahmins. They once held extensive tracts of land on *sasan* tenure and are hereditary priests and match-makers to the Rajputs, from whom (as well as from the Banias) they take food. They do not beg but accept what is offered to them in charity. They till their own lands, assisted by their women-folk, and the wearing of the sacred thread and the shaving of the head and face as a sign of mourning are optional with them.

The Paliwals take their name from the town of Pali, which they held in grant from Parihar, chief of Mandor, before the establishment of Rathor power in Marwar. They do not observe the festival of Rakhi on the full moon of the month of Srawan (July-August), because their ancestors are said to have been killed in large numbers by Mohammed Ghori on that day. They worship, among other things, the bridle of the horse on the occasion of Dussehra. They have a

a reputation for being excellent cultivators. Some have also taken to the indigenous banking business.

Rajputs.—The Rajputs are the traditional fighting, land-owning and ruling caste. They are proud of their war-like reputation and their ancestry and are still punctilious on points of etiquette. They worship Mataji, the shield, the sword, the dagger and the horse. A large proportion of the Muslims of Barmer and Shiv tehsils have a Rajput ancestry and, till recently, scarcely differed in their customs and manners from the Rajputs in general. In former times the Rajputs were usually *bhumias* or *jagirdars*. The abolition of jagirs has affected them adversely, for as a class they are not accustomed to thrift and have an aversion for occupations other than arms or government service.

Representatives of each of the three great divisions of Rajputs—the Surajbansi or Solar race, the Chandrabansi or Lunar race and the Agniculas or Fire tribes are to be found here. The predominant clan is, of course, the Rathor, belonging to the Solar group. The Bhatias, found mostly near the Jaisalmer border, represent the Lunar race, while the Fire tribes are represented chiefly by the Chauhans and Panwars.

Mahajans.—Among the Mahajans or Banias, nearly three-fifths are Jains. The principal divisions found here are the Oswal, Agrawal and Maheshwari.

Almost all the Oswals are Jains. They are said to be descendents of a number of Rajputs of different clans who were converted to Jainism in the 2nd century, and they take their name from the town of Osi or Osian, the ruins of which are to be found about 30 miles north of Jodhpur city. The Oswals are mostly traders and money-lenders but some are in government service and others were till recently *kamdars* or managers of jagir estates; their chief septs are the Mohnot, Bhandari, Singhi, Lodha (with four sub-divisions, one of which is named after Akbar's Minister, Todar Mal) and Mohta, of whom the Bhansalis were originally Bhati Rajputs and are regarded as the *chaudharis* (or headmen of the Oswals).

The Agrawals trace their origin to Raja Agarsen, whose capital was at Agroha in the Punjab. The story runs that Agarsen had 17 sons and, being desirous of marrying them to the 18 daughters of a Raja named Basak or Vasuki of the Nag or Serpent clan, another son was formed from the body of the eldest. Hence the Agrawals are divided into 17½ clans, the half section eating but not marrying with

the others, while its related (and the senior) section, known as the Narnaul Singhis, forms the *nutsaddi* or official class. The rest are engaged in trade, and many of them are very enterprising, being found in almost all cantonments and distant places under the name of Marwaris.

The Maheshwaris are all Hindus: like the Oswals, they trace their descent from the Rajputs, chiefly of the Chauhan, Parihar and Solanki clans. Their name is derived from Mahadeo or Mahesh, in whom they believe. They comprise 72 exogamous sections, abstain from liquor and meat and will not touch onions, garlic or carrots. By occupation they are traders, contractors and bankers, some having agencies in the remotest parts of India.

Rebaris.—The Rebrais, also called Raikas in Marwar, are properly breeders of camels. They claim that their progenitor was brought into existence by Mahadeo in order to take care of the first camel which had been created by Parvati for her amusement. They have two main divisions, Maru and Chalkia. The former deals only in camels and occupies a superior position in that its members can marry the daughters of the Chalkias without giving their own in return. The Chalkias keep large herds of sheep and goats. Among the Rebaris, the Samarias, or descendants of Samar, alone claim pure extraction, while the others are admixtures with several Rajput tribes, such as the Parihar, which has five sub-divisions named after the sons of Nahar Rao, the Raja of Mandor.

Jats.—The Jats are most numerous in Barmer tehsil and in the eastern parts of the district. They are believed to be of Indoscythian stock and have been identified with the Zanthi of Strabo and the Jati of Pliny and Ptolemy. Three main divisions are recognized, namely (i) the *asli* or pure Jats, claiming no Rajput ancestry but said to be descended from the hair (*Jat*) of the god Shiva; (ii) the joint Jat-Rajput stock, and (iii) the *anjana* or those of inferior social rank. The Jats are strong and hard-working and famed for their skill in cultivation. They are usually vegetarians; by religion they are Vaishnavas, worship the plough and the cow and are served by the Channiyat Brahmans. Most Jats wear round the neck a silver charm depicting Tejaji on horseback with his sword and a snake biting him on the tongue. Teja was a Jat of Karnal in Nagaur who, after a fight with the cattle-lifting Mers, died from snake bite; the Jats believe that, if a man bitten by a snake ties a cord round his right foot and repeats the name of Tejaji, he will recover.

Bhambis.—Also called Balais, these are among the lower castes and are traditionally workers in leather, village drudges, and, to a small extent, agriculturists. Those employed in removing the carcases of dead animals are called Dheds. There is little difference between the Bhambis and the Meghwals, descendants of Megh, who is said to have been a Brahman. There are four main divisions of this group, namely (i) Adi or original, (ii) Maru, (iii) Jata and (iv) Charania—the last three being descendants of Rajputs, Jats, and Charans, respectively. The first two divisions inter-marry but the other two are endogamous. The Maru women wear ivory and the Jata women lac bracelets while the Charanis women, like those of the Charans, dress in yellow. The Bhambis are Vaishnavas; those who worship Ramdeoiji are called Bhagwans from their peculiar red ochre coloured head-dress. This sub-division buries its dead.

Bishnois.—Though few in number, the Bishnois are of special interest because they are indigenous only to four states of the former Rajputana Agency—Jodhpur, Bikaner, Jaisalmer, and Udaipur. They were originally Jats and derive their name from their creed of 29 (*bis nau*) articles which they embraced at the instance of a Panwar Rajput ascetic of Nagaur named Jhambha towards the end of the 15th century. Major K. D. Erskine has mentioned that the Muslims were in power at Nagaur at the time and, not approving of Jhambha starting a new religion, told him to include some of their tenets in it. He agreed and added the following clauses: (i) burial to take the place of cremation; (ii) after calling on the name of Vishnu, the words *Allah Bismillah* to be repeated; (iii) at marriage ceremonies, the phera or circumambulation of the fire to be omitted and, when half the ceremony is over, the priest to change reading from Hindu to Muslim scriptures; (iv) the top of the head to be shaved and (v) the hairs of the beard not to be separated. However, the Bishnois dispute this fact.

Some of these precepts have been discarded, but the Bishnois form a distinct endogamous group, comprising almost as many exogamous sections as there are among Jats generally, from whom they are distinguished by the discarding of the scalp-lock and the interment of their dead, sometimes in a sitting posture. Usually they are strict vegetarians, tee-totallers and non-smokers and are partial to woollen garments as being pure. The Bishnois have their own priests. Their chief occupation is agriculture but they also keep herds of camels.

Bhils.—The Bhils are most numerous in the tehsils of Barmer and Chohtan. They belong almost entirely to the village watchman

and cultivating classes (they are indifferent cultivators) and are divided into about 60 exogamous septs, some of which claim to be original stock while others take their name from Rajput clans. Each sept has a recognized headman. The women are not allowed to wear silver ornaments but bedeck themselves with lac bangles, brass anklets and beaded neckless. The favourite ornaments of the men are ear-rings, and charms and amulets on the right fore-arm. Though the septs are exogamous, marriages usually take place within certain sub-groups or geographical limits.

Kumhars.—This group is traditionally employed in pottery and brick burning and the name is said to be derived from the Sanskrit *kumbha-kara* or maker of earthen vessels. Some *Kumhars* are employed as village servants and others are agriculturists but the social standing of the class is low. The *Kumhars* of Marwar as a whole comprise seven groups, one of which is Muslim, and each group is divided into a number of exogamous sections. The *Khetirs* occupy the highest position and do not marry with the others; they are mostly agriculturists and their women are allowed to wear silver ornaments. The *Bandas* are mere potters and their women wear ivory bangles. They are permitted to marry the daughters of the *Marus* without giving their own in return and do not have even such connections with the remaining three Hindu groups—the *Jatias*, *Purbias* and *Mewaras*. The *Marus*, besides making earthen vessels, keep lime-kilns and are known as *Chungars* in that capacity. The *Jatias* cultivate land, carry grain from one village to another on their donkeys and prepare ropes from the hair (*jat*) of goats. The *Purbias* sell grass and wood, but also make toys and are sometimes cultivators. The seventh group, the *Moilas*, are Muslim and claim descent from the Sama Rajputs of Sind. They are potters and agriculturists and their religious customs are a blend of Hindu and Muslim rites.

Other prominent social groups are the *khatias* or carpenters, some of whom work as black-smiths (*Luhars*) and goldsmiths (*Sunars*) and the *Nais* who, besides being barbers, play an important part in social matters as matchmakers to the lower classes. The three main groups of *Nais* are the *Maru*, the *Vaid* and the *Purbia*, and of these the second is considered inferior as the men are the leeches and the women the midwives of the village.

Inter-Caste Relations.—The breaking down of caste barriers over much of the country as a result of the spread of education and progressive legislation in this regard is not yet a noticeable phenomenon

here, except to some extent in the urban areas. In the rural areas, where habitations are scattered and communications poor, new ideas have not penetrated and old social barriers and prejudices persist. In fact, even in the urban areas, marriages outside the social group are contracted only in very rare cases and inter-community marriages not at all.

Superstitious Beliefs.—Superstition is life, and even the educated classes are not free from it. The main superstitious centre round the interpretation of dreams, acts like sneezing and the appearance of certain animals or classes of persons under given circumstances. Others include the following:

(i) The names of certain villages, believed to be inauspicious, are not uttered before breakfast; similarly, the names of certain animals are avoided; (2) some colours such as red and yellow are auspicious while others such as black and white are inauspicious; (3) moles and birth-marks are believed to indicate a person's character and provide a guide to his career; (4) precious stones have good or bad attributes assigned to them, and (5) there is widespread belief in the efficacy of *mantras* and *tantras*.

A superstition common in Mallani and Jaisalmer is that called *Sugan chiri*. While going out to work, it is considered auspicious if a sparrow is heard chirping on one's right, and while coming home on one's left. At night it is considered auspicious to hear the *kochri* bird, a species of owl.

Rajputs used to hold that it was inauspicious early in the morning to utter the name of a person who had died on the battlefield. This was supposed to herald more fighting. The people also had great faith in the powers of *Bhopas* to cure diseases, recover stolen property and fight the influence of evil spirits.

SOCIAL LIFE

Property and Inheritance

Joint Family System.—The industrial backwardness of this region, coupled with a general disinclination to travel far in search of employment, have had the effect of keeping the joint family together in the traditional occupation. Except possibly in the towns of Barmer and Balotra, there is not much evidence of the breaking up of the joint family system. This is revealed in the Census figures

(1951) wherein it was shown that, among 1,000 house-holds, heads of families and their wives numbered 1,693, sons 1,218, daughters 782 and other relatives 936.

The joint family as a rule consists of parents, married sons and their wives, unmarried sons and unmarried daughters. In the present state of society in the area, dissensions within the family rarely come to the surface, and though it may sometimes be necessary for married sons to live apart if their work so demands, resources are invariably pooled. Rarely does a division of property occur in the life-time of the father. Traditionally, the property of a deceased house-holder is equally distributed among all the sons. The jagirdar class of Rajputs, however, follow the rule of primogeniture.

Adoption.—A Hindu who has no male issue usually adopts a son from amongst his close associates. This is called *god lena* (god meaning lap and *lena* to receive in). This ceremony takes place in the presence of the caste people and near relatives. The adoption is confirmed by the execution of a registered deed. The adopted son enjoys all legal, social and religious rights and privileges and is subject to all the liabilities of a real son of the adoptive father. In some cases the priest is called and a fire sacrifice known as *dattaka hom* is performed.

Marriage and Morals

Polygamy.—The classes in which a man is permitted by custom to have more than one wife are the Muslims, Rajputs, Jats, Bhambis, Meghwals and Bhils. Polygamy is, however, rapidly dying out, largely for economic reasons; polyandry is unknown. In former times, it was common practice for the bigger jagirdars to contract hypergamous marriages with the daughters of other Rajputs of lower social status. In such cases however, they rarely if ever visited their fathers-in-law. Among Jats, a man could not marry his wife's sister if his wife were alive. A similar rule existed among Bhambis and Meghwals, who however went further in forbidding marriage even with a deceased wife's sister. The Bhils, on the other hand, were permitted to, and frequently did marry sisters.

Restrictions on Marriage.—Restrictions on marriage vary with the different social groups and some have already been described. It would serve no useful purpose to go into further details as the restrictions are the same as within the Hindu sects elsewhere. It may however, be observed that there has been no loosening of the

hold of old customs and ideas and inter-caste marriages are practically unheard of, even among the settled urban population.

Parda system.—The *parda* system, which was at one time very strong among the Rajputs, the higher class Muslims, certain Brahman sects like the Srimalis and even some Mahajans, is disappearing, but even today Rajput and orthodox Muslim women rarely move out of their homes. Among all other communities, women move out freely but generally veil their faces in the presence of elders and strangers. Working women, however, do not cover their faces.

Dowry System.—As elsewhere, the giving of dowry has been general practice in the area and it is yet too early to estimate the effect of the recent legal ban. Among some communities, such as the Paliwal Brahmins and the Porwal sect of Mahajans, a daughter is considered a valuable commodity and by custom dowry is demanded instead of given when she is married. Within the Banda and Purbia sects of the Kumhars there is the custom of keeping a would-be son-in-law in the home for some time as an apprentice. This is called the *Ghar Jamai* system and is also prevalent to some extent among Jats, Bishnois and some Rajputs.

Marital Age.—Among the Brahmins, girls are rarely married before the age of 15 and boys before 18. Among the Rajputs child marriages were formerly the rule but this is not so now; the same may be said of the Jats. Among the Bhils, girls are rarely married before the age of 15 and not infrequently at a much later age. However, among the Mahajans and in most of the lower social groups, child marriage is still fairly common though the couple live apart till the girl attains puberty. In such cases, the ceremony is more in the nature of a betrothal, but it is binding all the same. Thus, in the Census of 1951, only 85 girls per 1,000 below the age of 14 were listed as married; the figure for boys was 26.

The Census revealed that 319 out of every 1,000 males in the district were married, 641 were unmarried and 40 were widowed or divorced. The comparable figures for women were 434, 420 and 146, respectively.

Widow Re-marriage.—The percentage of widows (14.6) in the female population is disquieting but inevitable in a society several sections of which frown on the re-marriage of a woman after her husband's death. In times past, a section of the Purohits lost caste by recognizing the marriage of widows (*natra*) whence they became

known as *Natrayats*. Among the major social groups of the district, the Jats may be said to be at the head of the widow remarrying castes. Such remarriage is also permitted among some of the lower castes, notably the Kumhars, among whom a fee is payable to the relatives of the deceased husband.

Divorce.—This used to be permitted by custom among certain sects like the Jats and Bhils, where it was deemed sufficient for an announcement to be made in the presence of the group members. However, even in former times, divorce was resorted to only in extremely rare cases. Among Muslims also, cases of divorce have been rare.

Position of Women.—The position of women has remained practically unchanged. Among the upper classes, they still tend to live a life of seclusion. The provision of educational facilities for girls is bringing about a welcome change in the younger generation but the results will not be visible for some time. At present, few women belonging to the upper and middle classes are striking out 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 economically active. However, they too occupy a subordinate position in the social scale.

Drinking and Drug-taking.—Most castes abstain from liquor and the consumption of it is common only among the Rajputs and in some of the working classes, especially those which have a very hard life.

Among the Rajputs, the taking of opium is still common though not to the same extent as formerly. At the time of birth and marriage ceremonies and on certain festivals like *Akha Teej*, opium is offered to guests. The drug is pounded in a brass vessel with a special stick and mixed with water. It is then strained into a cup from which it is poured into the host's hand. The guests come up one by one and each, after a polite show of protest, accept a drink from the host's hands. A Rajput considers it an insult if a guest refuses opium at his hands. Because of this ceremonial use of the drug and the large number of addicts, the consumption of opium is still fairly considerable. Details are given in the chapters on Revenue Administration and Social Welfare. Government policy is aimed at restricting the sale of the drug with the ultimate aim of stopping its consumption completely. It is noticeable that the younger generation

of Rajputs is much less addicted than the older and the conclusion may be drawn that opium taking is on its way out.

Home Life

Houses and Households.—The total number of occupied houses in the district at the time of the Census of 1951 was 80,240, i.e., about eight houses per square mile. The average number of persons living in a house was 4.96. These 80,240 houses were occupied by 85,240 households. The sizes of households varied to a great extent from one or two members to more than 10. In the rural areas, 34.8 per cent of the households were of medium size, consisting of four to six members. In the urban areas, 33.3 per cent of the households were of medium size. There were very few households of very large size (10 members or more) in the urban areas and these formed only 7.6 per cent in the rural areas.

Dwellings.—In the eastern part of the district, where timber supplies, particularly *babul* and *khejra*, are available, the common people's dwellings are of two kinds, *ghar* and *padwa*. The former have mud walls and flat mud roofs supported on wooden beams; the latter have walls of sun-burnt bricks and are covered with rude tiles on sloping roofs—those with shed roofs being known as *ekdhalia* and those with gabled roofs as *dudhalia*.

In the arid and sandy tracts, which comprise most parts of the district, the usual shelter is the *jhumpa*, which is characteristic especially of the cottage farms of *dhanis*. The *jhumpa* is generally circular, with a diameter of 12 ft. or so. The walls are made of mud and are about four to five feet high. The roof is conical and consists of wood supports thatched with a combination of the *akra* shrub bushes and wild grass, the whole being secured by means of coarse string. The circular form of hut is favoured because of the strong winds that blow almost the year round. Apart from a low door, there is no opening, but there is plenty of ventilation through the thatch. Generally, a family builds three *jhumpas* and encloses them by a hedge of thorns to keep out animals. One *jhumpa* is used as a kitchen, the second as the living quarters and the third for storing grain and fodder, etc., but sometimes a single large *jhumpa* serves all three purposes. This type of hut costs little to build; periodically the roof is patched or renewed and the walls and floor re-plastered with clay mixed with cow dung. A *dhani* consists of a few such family huts built in the centre of the cultivated area or pasture grounds. Domestic animals are kept by night within the thorn

enclosures and usually there is a family dog or dogs to give warning of the approach of strangers or wild animals.

In the towns, and in the village settlements proper, the buildings vary from mud huts to large houses built of sandstone and mortar. The *Thakur's* stone house is a feature of the large village, though in the more prosperous ones business men have built such houses as well.

Furniture.—Except for string cots, there is practically no furniture in the average village home. Sometimes, in the mud huts, there are shelves built into the walls for the storage of articles and an alcove for housing the deity. Every family, however, keeps a number of earthen pitchers for storing that precious commodity—water. In the towns, in middle class houses chairs and tables make an appearance and the homes of the well-to-do are furnished in much the same manner as those of their counter-parts elsewhere. The paucity of furniture in the average home is partly off-set by wall paintings of animals and gods and, in some dwellings a picture or two.

Dress.—The dress of the adult Hindu male consists of three articles—a *dhoti* about 10 ft. by 3 ft., a *bandia angarkha* or full sleeved *kurta*, close fitting but buttonless, and a *safa* for the head. The *dhoti* is generally borderless, except amongst the well-to-do. It is tied in the usual way with a portion of it taken between the legs and tucked in at the back. The *angarkha* is now yielding place to the shirt. It has three strings to tie it. Younger men generally use the coloured *safa* while their elders favour the white turban. It is usual for a man to wear the coloured *Safa* till his father dies or till he assumes a responsible status. Rajputs and some other classes wear the *Kesaria* or saffron-coloured turban and the lower classes favour the colour red. In addition to these articles of dress, many people carry a white *chaddar* on their shoulders. This gives way to a woollen blanket or shawl in winter.

The dress of the adult Hindu female consists of a *ghaghra* or skirt, a *kanchli* or half-sleeved or (quarter-sleeved) bodice and an *orhni* or veil about $2\frac{1}{2}$ yds. by $1\frac{1}{2}$ yds. The skirt is generally made of heavy material, and is tied with a string on the left side. The *kanchli* covers only the breast and is kept in position by being tied up behind. Most women wear with the *kanchli* another piece of cloth to cover the stomach and some wear, over the bodice, a *kurti*. The *kurti* covers both back and front and is sleeveless. The loose corners of the *orhni* are tucked under the bodice after being passed

over the head. Some castes also wear a white *chaddar* as the outermost garment when appearing in public, while a woollen wrap called a *lunkar* is commonly worn in the cold weather. Among the higher castes, in addition to the skirt, a *phatia* is worn. This is a piece of cloth about a yard in width and of the same length as the skirt and signifies the married state. It is of a colour different to that of the *ghaghra* and is put on only when going out of doors. Unmarried girls wear the *bandia angharkha* like men instead of the *kanchli*. Some even wear a loose shirt. The women love bright colours, especially red, and their appearance does much to brighten the drabness of the country-side.

Muslim males wear a round turban, an *ajarak* (a cloth about two yards long) on the shoulder which is spread on the ground during *namaj*, a full sleeved but collarless *kurta* up to knees and a *tehmad* (a long sheet of cloth usually printed and $2\frac{3}{4}' \times 1\frac{3}{4}'$ in size worn loosely round the waist). The richer muslims wear a golden ring *mohar*, made of, a solid gold coin; they trim their beards, whereas the poor people let theirs grow. White dress is preferred.

The Muslim woman wears the *paijama*, a long *kurta*, usually half-sleeved, an *orhni* and, when going out of doors, a *jhagga* which resembles a flowing gown, being gathered up at the waist in innumerable tucks but is put on like a coat as it is open in front and has close-fitting sleeves. Muslim women from the Sedwa area wear the *tehmad*. The burqa system is not observed.

European dress is to be seen only in the towns and among government servants generally.

Ornaments.—Men usually wear no ornaments save a string necklace to which amulets are tied. Some classes, however, wear ear-rings and in some of the lower classes a silver bangle on one ankle.

Women, of course, are very fond of ornaments. On the head are worn ornaments called the *bor* or *tilra*, in the ears *bedla* and *dugla*, *jhumars* with or without *sanklies* and *damni* (ear-rings). The nose decorations are variously known as *kanta*, *phoolari*, *booli*, *nath* and *phini*. The neck ornaments are the *hansli*, *mala*, *kanthi dodni*, *nimboli*, *toosi*, *mooth teriya* (or *timania*), *harda*, *kanthla*, *dora* or *taytiya*. Sometimes more than one of these ornaments is worn. On the hands are worn *chura* with or without gold *pattis*, *kari*, *katriya*, *madaliya*, *churi* (bangles), *anwala*, *sanbon*, *biliya*, *chur*, *bhujband*, *gajra*, *punchi*, *gokhru*, *chhallala* or *hathankla*. Round the waist is worn

a chain called *kandora* and on the ankles and feet *sati*, *langar*, *kara*, *makiya*, *anwala*, *chailkara*, *curi*, *rinjhol*, *polaries*, *angootha* and *chantu*. In many cases the ornaments differs only slightly in size or design. A minute description of each would be pointless; the type of ornament can be pictured in the mind from the purpose it serves.

Most ornaments are made of silver, though gold is used in some cases by those who can afford it. During princely rule gold could not be worn on the feet except by those to whom the prince had granted this honour. Though this restriction no longer exists, such ornaments are now not worn.

Food.—The principal foodgrain (and in most areas the only grain consumed) is *bajra*. It is only in the towns and in the eastern tehsil of Siwana that wheat is a common article of diet. *Jowar* is also occasionally eaten. The main pulse is *moth*. Neither rice nor meat are in general use, though the Muslims, Rajputs and some of the other Hindu castes are meat-eaters when they can afford it. The flesh of the goat and wild pig are highly esteemed by the Rajputs, sheep mutton and fowl being considered inferior meats. The poultry keepers are mainly Muslim. The common vegetables are the *gwar-phali*, *kachra*, *sangri*, *kumhatia*, onion and radish. The potato is seen only in the town and in the larger village markets. The *gwar-phali* is the whole pod of *gwar* and is eaten with thick *bajra* bread (*sogra*), *kachra* is the dried unripe *kakri* or *cucumber*; if the *kakri* was ripe before drying, the vegetable is called *latra*; the fresh *kakri* is also extensively consumed; *sangri* is the pod of the *khejra* (*Prosopis spicigera*) and the leaves of the tree are also eaten; *kumhatia* is the fruit of the *kumhat* plant. The pods of the *kair* and *phog* are sometimes used as condiments and the use of chillies is general. In time of scarcity, some of the poorer people in the interior subsist on the roots and seeds of grass, chiefly the *bhurat* variety, supplemented by locusts preserved in salt. Water-melons are grown along the Luni the fruit being eaten fresh and the seeds dried, ground and mixed with flour for food. Other fruits include the *bor* (small plum), *pilu* and *dhhalu*. The last two are the ripe fruit of the *jal* and *khair* trees, respectively. The use of milk and milk products is widespread and the habit of tea-drinking is on the increase.

The daily bill of fare of the common man is simple and hardly ever varies. The usual dishes are: *sogra* or thick unleavened bread made from *bajra* flour, baked rather hard; *rab* or flour boiled down in diluted buttermilk, generally cooked in the evening and kept for

use the next morning; *khich* or *husked bajra* mixed with *moth* in the proportion of about four to one, boiled down thick in water and some times improved by the addition of a little *ghee* or oil; *ghat* or coarse ground floor boiled thick in water or buttermilk; and *dalia*, which is similar to *ghat* but is boiled thin in water.

The agricultural classes have four, and the artisans three meals a day. The early morning meal of the former consists of *ghat* and either *rab* or plain buttermilk. About four hours later, a substantial breakfast is eaten, *sogra* taking the place of *ghat* and then follows another interval of four hours, spent in rest or sleep, especially in the hot weather. Lunch is a light affair, succeeded by hard work which whets the appetite for a hearty dinner after sundown. These four meals are respectively called *sirwan*, *jara* or *kalewa*, *bhata* or *roti*, *do-pahara* and *bialu*. The artisan classes take their first meal in the morning, the second around midday and the last after sunset, *sogra* or *khich* forming an unfailing item of the menu. The poorest people subsist mainly on *sogra* and buttermilk. They eat onions but scarcely any other vegetable and their only condiment is a chutney of salt and chillies mixed in the proportion of two to one.

On ceremonial occasions such as marriages and on religious festivals *gur*, sugar and *ghee* are added to the food. A preparation much liked by the farmers is *seera*, which is flour mixed with *gur* or sugar and cooked in *ghee*.

Drinking water is scarce throughout the district. The sources of supply are wells, *benis* (shallow holes in river or tank beds) and *nadis* during the rainy season. Some of these sources are contaminated but the only precaution taken is to strain out the mud and dirt through a cloth. In some places, like Chohtan and Bisala, there is heavy incidence of guinea-worm.

Daily life.—In the towns, and among the artisan and business classes generally, the daily routine is the same as in urban areas elsewhere, except that in summer the afternoon break is fairly long. The life of the agriculturist is much different. In the desert area, where there is only one crop (*khari*) farming is confined to about five months and the rest of the year is spent in grazing domestic animals. The women arise earlier than the men and spend some time at the grind-stones. Fetching water is a major headache and in places where the supply is far from the habitation the men assist in this task. In fact, the fetching of water for the family and taking the animals

down to drink occupies as much as a third of the working hours in the hot season. In summer, the people go to bed soon after sunset and rise before dawn, making up for loss of sleep by rest during the day. In winter, however, they sleep only at night. Because of the scarcity of water, bathing is not common. Soap is rarely used, its place being taken by *multani mitti* (fuller's earth) for washing the hair and the body.

Life in the rural areas moves at a very slow tempo. It is only from June to October that the farmers are fairly busy; for the rest of the year their only work is to fetch water and look after their animals. However, though time hangs heavily on their hands, the lack of water, the shortage of food and the rigours of the climate all add up to a very hard life. Also, the life being such, the people are slow-thinking and resistant to new ideas, even those aimed at their economic and social betterment.

Because of the strong winds, the hair of children, especially boys, is cropped close; in the case of girls it is usual to cut at least a fringe in front to prevent the hair being blown across the face. Men generally keep their hair short and women overcome the wind problem by tying their hair in numerous knots, called *mindis*.

Communal Life

Religious Fairs.—The main religious fairs are those held at Viratara, Khed and Nakora Parasnathji. Viratara is about eight miles from Chohtan from which point, till recently, the only means of approach was on foot or camel-back. A fair is held here three times a year, in the months of *Chait*, *Bhadon* and *Magh*, respectively, for worship of the goddess *Vakaldevi*. In Chohtan itself a religious fair is held once in several years but there is no fixed time interval.

On the occasion of every *puṇnima* (full moon), a religious *mela* is held at the Khed temple and on *Radha Ashthami* (*Bhadon Sud 8*) a big fair is held. Khed is six miles from Balotra and on the railway line; a gravel road has also been constructed between the two places in recent years. The temple building is large but of no great architectural significance; there are rooms for pilgrims to stay. Khed was the main centre of civilization of the area in days gone by and it was here that Rao Sihaji settled with his band of Rathors in 1212.

Also close to Balotra is the wellknown Jain temple of Nakora Parasnathji. A fair is held here every year on *Paus Vadi 10* when about 10,000 people assemble. The temple is situated in picturesque surroundings with hills on all sides.

In Siwana tehsil there are five spots of religious significance which together are called *Panchtirthi*. A fair is held once a year.

Festivals.—The principal Hindu festivals observed here are Holi in *Phagan* (February-March); *Sitla Saptami* (in honour of the small-pox goddess who is also the protector of infants) in *Chait* (March-April); *Gangor* (sacred to Gauri or Parvati, the goddess of abundance) also in *Chait*; *Akha Teej* in *Baisakh* (April-May) after the *rabi* harvest; *Rakhi* in *Sawan* (July-August) when sisters tie charms round the wrists of their brothers; *Dussehra* in *Asoj* (September-October) and *Dewali* in *Kartik* (October-November). These festivals are celebrated in much the same manner as elsewhere, though it may be mentioned that to the Rajputs *Dussehra* is an occasion for very special celebration. Another point of note is that *Akha Teej* is celebrated with gay abandon; in former times it was customary to take opium freely on this day and to organize manly sports.

Festivals of minor importance include (1) *Dawat Pujan*, literally, worship of ink-pots, which used to be celebrated by the writing and official community but is now only observed by the mercantile class when they open new account books at *Diwali*; *Nirjala Ekadashi*, when the orthodox fast throughout the day; *Mondays* of the month of *Sawan*, when people go out on picnics and rejoice in the onset of the monsoon; *Janamasthami*, especially sacred to Vaishnavas as the birthday of Lord Krishna; *Makar Sakranti*, which falls on January 14 and is popular among the young as kiteflying day, and *Basant Panchami*, the festival of spring.

The chief Muslim festivals are, as elsewhere, *Muharram*, *Id-ul-Fitr*, *Id-ul-Zuha*, *Shab-i-barat* and *Barawafat*. These are publicly observed.

The main Jain festivals are Mahavir Jayanti in *Baisakh* (April-May) and *Pajushan* (more correctly *Paryushan Parv*) terminating on *Samwatsari*, the fifth day of the dark half of *Bhadra* (August-September).

Dancing.—Though a number of folk dances are popular, men and women do not dance together. On the festival of Holi, men dance in a circle, each holding two small sticks, while a drummer sits in the centre with a *dhap* or *chang*, a drum about two feet in diameter covered on one side with goat-skin. The men dance to the beat of the drum, clashing their sticks. This dance is called *Ghair*. The

most popular dance of the women is the *Mathi*. Each dances in turn, her head usually covered, to the accompaniment of a drum. Another dance, performed on the occasion of Holi, is the *Luran*. The women form two lines facing and in turn each line dances towards the other, the performers clapping their hands. As a variation, one line may dance round the other in single file. This is a pretty dance and looks very effective when performed by moonlight.

Folk Music.—The main folk musicians are the Muslim *Dholis* (drummers), for most of whom this is the only means of livelihood. They know scores of songs and sing at festivals and social gatherings to the accompaniment of a *kamcha*, which is crude form of violin. Other musical instruments in popular use are the *algoza*, a type of flute much fancied by cattle grazers and the *murli*, played by *jogis*. While working in the fields, the cultivators sing together a song called *Bhinat*. Another song, sung singly, is *Loharia*. A favourite song with women is *Panihari*, about a girl going to fetch water, and another is *Teej* a love song sung in the rainy season. Songs about Khemro and Lakho, two heroes, are sung on the occasion of a marriage. Khemro belonged to Sind and was renowned as a philanthropist; Lakha is said to have been a Raja of Bhuj in Kutch. Two popular love songs are *Jalal* and *Panihar*.

Folk Drama.—According to the Hindu *shastras*, Indian drama owes its origin to the *Kathputhli* (puppet dance). In fact, the word *sutradhara* commonly used in Sanskrit dramatic works for the manager is derived from *sutra*, the thread with which are manipulated the various movements of the puppet dolls. This is certainly one of the oldest dance techniques of India and was very popular both with the masses and the ruling classes.

The art of puppet dancing lies in the skill of the fingers. The *kathputliwala* operates from behind a curtain; he holds a bunch of threads in his fingers by which he controls the movements of the puppets, which are in front of the curtain in the view of the audience. The show is held invariably at night and lasts from two to three hours. The operator's assistant, usually his wife, plays on the *dholak* (drum) and sings the story of the drama as the puppets are put through their paces. The most popular of the stories thus presented is in praise of Amar Singh Rathor.

Folk Ballads.—A class known as *Bhopas* are followers of Pabuji, a Rathor hero who lived some 400 years back and who is revered

throughout Marwar. The *Bhopas* have composed hundreds of ballads around the heroic deeds of Pabuji and have evolved an interesting method of reciting them with suitable actions. Believers in the mysterious power of Pabuji invite the *Bhopas* to recite when there is sickness in the home, when some evil influence is feared or even for the sake of entertainment. The method of presentation is this:—

A curtain commonly known as *Pabuji-ki-Pad*, nearly 30 ft. in length and 5 ft. in breadth, profusely painted with scenes from the life of Pabuji and rolled on a thick bamboo, is carried by the *Bhopas* from place to place. The *pad* is rolled out tight and while the wife of the *Bhopa* throws light on the various pictures and dances, the *bhopa* himself plays on an instrument known as *rawan katha* and recites.

A similar type of *pad* known as *Devji-ki-Pad* is less common. Devji was a Rajput hero of the Solanki clan.

The *Bhopas* claim to be Solanki Rajputs. There are many sub-classes spread all over Rajasthan, all devoted to the profession of music.

The other bardic class is the *charana*. In this area, the best among them drifted to the court at Jodhpur. Those that remained attached themselves to the landed aristocracy, who gave them gifts and grants of land. In return, the *charans* composed heroic poetry about their benefactors, laying stress on their noble ancestry and martial deeds.

Amusements.—Apart from association football (soccer) and volleyball, neither of which requires much in the way of equipment, games of western origin are rarely played. Hockey is confined to the bigger schools in Barmer and Balotra and the only tennis courts are those of the Barmer club. Riding, once very popular among Rajputs, is now on the decline as few can afford stables. Occasionally, at fairs, camel races are held.

The common outdoor amusements are *kabaddi*, a team game in which the object is to touch members of the opposing team who cross a dividing line, the game continuing till one team is thus eliminated; *khalu*, a somewhat similar game; *gulli-danda* or tip-cat; wrestling; *ankh-michoni* or hide-and-seek; popular with women and children; kite-flying and other children's games resembling blind-man's bluff, prisoners' base, etc. In the month of Srawan (July-August) picnic parties are arranged every Monday.

Indoor amusements include cards, music and dancing parties (these, too, are on the decline with the withdrawal of the patronage of the big-landlords) and a game called *shatranj* which is a form of draughts.

Impact of Social and Economic Changes

The structure of society has undergone a significant change in the past few years. In former times, the set-up was purely feudal and in the rural areas particularly life revolved round the central figure of the *Thakur* or big *Jagirdar*, whose lightest word was law.

The changes brought about by the establishment of district administration on the lines of the provinces of the former British India, the abolition of *jagirdari*, the various tenancy and land reforms and, more recently, the introduction of a new system of local self-government, have all had a powerful impact on the social set-up. The *jagirdar* is no longer the king-pin of local life. His authority has gone and, although he has received compensation for being deprived of land, in most cases he has had considerable difficulty in adapting himself to the new situation. The smaller land-owners have, in fact, been hardest hit because the compensation they have received is necessarily smaller and temperamentally many of them are unfit for branching out into alternative professions.

However, while the former land-owning class is thus struggling to adjust itself, the common man has benefitted considerably. He is able to own land, his economic position has improved as a result of various measures taken under the development programme and the fact that he can now elect his own local leaders has given him a new sense of dignity. At the same time, it is to be observed that, in a backward area such as this, the changes on the surface have taken place at a faster pace than in the minds of men. Thus the villager, accustomed for centuries to looking up to his *Thakur*, is not yet completely prepared to regard him as a mere equal. The ex-landlords still command considerable respect and this factor provides them some relief in the process of painful re-adjustment.

Together with the landlords, their retainers and hangers-on have been affected by the recent changes and have had to seek alternative employment. A class which is experiencing bad days is the musician class and those who earned their livelihood by singing and dancing or composing ballads. These people used to depend for their livelihood on the patronage of the *jagirdars*; now

that patronage has been withdrawn and, being unsuited by outlook for any other work, they are eking out an existence by performing at marriages and other festive occasions. The State Social Welfare Board is examining the problems of the Muslim *Dholis* in Barmer town with a view to relieving their distress. Another group affected is the *Charans*, the bards who depended on the support of the landed aristocracy, in praise of whom they used to compile exaggerated histories and odes.

CHAPTER IV
AGRICULTURE AND IRRIGATION
GENERAL CONDITIONS

The whole of the former Jodhpur State, of which this district formed part, is generally speaking, a vast desert tract with conditions improving gradually from west to east. In this district, the rainfall is scanty, the water table is far below the surface and there are no perennial rivers. Over large areas, not only is there an acute scarcity of water but the soil is so sterile that agriculture is impossible and the inhabitants eke out a precarious existence by grazing domestic animals on the grasses that spring up during the rains, moving their herds and flocks eastwards, in search of pasture, when the grass gives out in early summer.

In spite of these unfavourable conditions, it was shown in the 1951 Census Report that 77.47 per cent of the total population depended directly or indirectly on agriculture and animal husbandry as a means of livelihood.

LAND UTILIZATION

In 1960-61, the district had an area of 69,62,037 acres, of which a total of 32,39,059 acres was cultivated, 4,613 acres or 0.14 per cent of the total cultivated area being cropped twice. Thus, a net total of 32,34,446 acres or 46.45 per cent of the total district area, is cultivated. In the same year, 6,33,834 acres, i.e., approximately 19 per cent of the net cropped area, was classified as current fallow.

Among other lands not available for cultivation, forests occupied a mere 29,326 acres or 0.42 per cent of the total area of the district. A total of 3,60,005 acres was barren land, representing 5.17 per cent of the total area, and 2.74 per cent, i.e., 1,91,004 acres, was put to non-agricultural uses. Permanent pastures accounted for 4,75,890 acres or 6.83 per cent and a total of 16,39,058 acres was classified as "Other Fallows". Only 44 acres were shown as under miscellaneous tree crops and groves.

Culturable waste land amounted to 3,98,430 acres, equal to 12.34 per cent of the net cultivated area. The extent of culturable waste land has fluctuated during the period 1955-56 to 1960-61; it touched the high mark of 32.45 per cent in 1957-58, when the total area of such land was 9,04,803 acres.

The primary reason for this fluctuation is that culturable waste land in this district is comprised mainly of sandy tracts (*dhoras*) which are ploughed during years of good rain, and are otherwise neglected.

These findings on land utilization are tabulated below:—

LAND UTILIZATION							
(a) Cultivated land							
(Acres)							
Year	Net area sown	Current fallow	Total area of the Distt. according to the village papers		Area sown more than once		
1	2	3	4	5			
1955-56	28,03,090	7,94,462	68,63,500	8,597			
1956-57	27,23,948	13,07,075	68,85,739	6,234			
1957-58	27,69,730	9,67,873	69,40,525	3,244			
1958-59	28,25,250	12,10,620	69,62,385	4,134			
1959-60	31,85,902	4,83,279	69,62,008	4,787			
1960-61	32,34,446	6,33,834	69,62,037	4,613			

(b) Uncultivated land							
Year	LAND NOT AVAILABLE FOR CULTIVATION			OTHER UNCULTIVATED LAND EXCLUDING FALLOW LANDS		OTHER FALLOWS	
	Forests	Barren land	Land put to non-agri. uses	Permanent pastures	Land under § Misc. tree crops & groves	Culturable waste	
1955-56	—	9,41,665	1,51,088	2,69,574	—	6,31,338	12,71,951
1956-57	—	3,81,172	1,50,562	2,20,393	158	8,95,701	12,06,730
1957-58	—	3,36,470	2,21,789	2,12,857	451	9,04,803	15,26,552
1958-59	29,114	3,81,608	1,78,263	4,64,902	23	3,71,470	15,01,135
1959-60	29,156	3,16,955	2,26,079	4,85,501	8	3,81,149	18,53,979
1960-61	29,326	3,60,005	1,91,004	4,75,890	44	3,98,430	16,39,058

§ Not included in net area sown.

Classification of sown area

(Acres)

Year	Total area sown	Area sown more than once	Net area sown	Total area under food crops	Total area under non-food crops
1	2	3	4	5	6
1955-56	28,11,687	8,597	28,03,090	18,55,279½	9,56,407½
1956-57	27,30,182	6,234	27,23,948	22,33,351	4,96,831
1957-58	27,72,974	3,244	27,69,730	22,50,485	5,22,489
1958-59	28,29,384	4,134	28,25,250	22,96,845½	5,32,538½
1959-60	31,90,689	4,787	31,85,902	24,96,160½	6,94,528½
1960-61	32,39,059	4,613	32,34,446	26,96,832½	5,42,226½

Afforestation

A serious problem is that of checking the march of the desert, which already covers most of the district. It has been estimated that the desert is expanding eastward at the rate of about half a mile every year. The Desert Afforestation and Soil Conservation Station at Jodhpur, set up by the Ministry of Food and Agriculture, Government of India, is studying this problem and taking counter-measures. The activities of the station are still, however, in the experimental and research stage.

One unit of the station is situated at Gadra Road in the extreme west of this district. In this unit, experimental plantation has been carried out with the following species of trees:—

Casurina equisetifolia, *Albizia lebbek*, *Cassia siamea*, *Tamarix articulata*, *Eucalyptus rostrata* and *Acacia cyanophylla*. As a result of these experiments, it has been found that the *Eucalyptus rostrata*, *Tamarix articulata*, *Acacia cyanophylla* and *Albizia lebbek* species, in that order of suitability, can be utilized for afforestation under extremely arid conditions, provided sufficient water is available during the first two years of growth. Such favourable conditions, however, are rarely met with in this tract.

The Gadra unit has three nurseries where young plants are raised for the plantation programme. These nurseries are located at Gadra Road itself, Barmer and Shiv. The Gadra Road and Barmer nurseries were established in 1953 and that at Shiv in 1957. The nur-

series distribute seeds and plants to the panchayat samities and other development bodies, schools, hospitals, police and R.A.C. units and also to private individuals.

One important aspect of the work of the unit is the undertaking of road-side plantation. So far, plantation has been undertaken on the following roads: Barmer-Shiv, Shiv-Balesar, Barmer-Sindhari, Ranasar-Harsani and Gadra Road-customs border. As much as 82 per cent of survivals has been reported from the Gadra Road-customs border road, but the results elsewhere have been disappointing due to unfavourable weather conditions; Gadra Road itself has adequate watering facilities. An additional serious problem has been that of protecting the young trees from grazing by animals.

Another important activity has been the study of the movement of sand at Barmer, which has shown that mulching with grass material is extremely useful in countering the problem of sand drift. As a result of this finding, an area of 176 acres north-west of Barmer town was taken up for treatment in 1957-58 in order to protect the new colonies and the old town itself from sand drifts. Mulching was done with grass at right angles to the wind direction and in between the mulched strips seeds of *bajra*, *moong*, *guar* and *sarson* were sown after the outbreak of the rains in early August. On either side of the sown lines a mixture of grass seed was sown and nearly 4,000 trees planted. Unfortunately, the abrupt closure of the monsoon soon after its outbreak ruined the plantation. The experiment has since been resumed on a lesser scale.

IRRIGATION

Rivers

There is only one river of consequence in the whole of the district, i.e., the Luni. Irrigation is carried out through wells along its course, as already described in the first chapter. Though a seasonal river, the Luni is thus of considerable importance to the economy of the district. There is no dam on its course through Barmer, and hence no canal irrigation, but the wells on the banks of the river and its tributaries form the most important source of irrigation in the district.

Lakes and Tanks

Apart from the Pachpadra depression, which sometimes has the appearance of lake during the monsoon, there is no natural lake

in the district. As the water, which collects in this depression, is highly saline, it is useless from the point of view of agriculture. Numbers of small tanks exist but most are dry by March and in any case they are used primarily as sources of drinking water for men and animals.

In fact, the only irrigation tank in the district is that near the village of Meli in Siwana tehsil. This is an old bund 1,200 ft. long and 20ft. high with a catchment area of about 90 sq. miles. It has recently been repaired. The storage capacity of the tank is about 164 million cu. ft. and it is estimated that, once channels are dug, it will command an area of more than 1,600 acres. At present, however, the total area served, including the area under bed cultivation, is only about 500 acres.

There is no office of an Irrigation Engineer in the district and the Meli bund is maintained by the Irrigation Department's Jawai Canals Division at Jawai—Erinpura Road. However, a number of irrigation surveys have been undertaken by the office of the Assistant Engineer (Irrigation), Surveys and Investigation sub-division, Jalore, as follows:—

Khulal Scheme:—This scheme, in Shiv tehsil would serve an area of 250 acres. The estimated cost is Rs. 30,000.

Bamsin Scheme:—This was a scheme in Siwana tehsil to irrigate an area of 1,000 acres, the cost being about Rs. 2.5 lakhs. It has been dropped after investigation due to (1) the railway line coming under water, (2) the soil being saline and (3) the commanded area being already covered by the Meli bund scheme.

Nakora Scheme:—This is an important scheme near Sindhari in Barmer tehsil designed to serve an area of 15,000 acres. The survey is complete but foundation investigations have still to be done. The problem of over-flow has not yet been solved.

The above schemes have already been surveyed. In addition, site inspections have been carried out on the following schemes with the results indicated:—

Didas bund:—Not to be taken up as the commanded area is covered by the proposed Giroliya scheme in Pali.

Sella Scheme:—Near Mokalsar in Siwana tehsil. It has been suggested that an anicut may be constructed in the upper reaches of the stream.

Gura Dam:—Given up as the water is to be diverted to the Meli bund.

Gole Scheme:—Near the village of Gole on the river Luni. This has been given up in favour of the Nakora Project.

Janiyana Diversion Scheme:—Dropped as the land is saline; the Pachpadra Inundation Scheme has been abandoned for similar reasons.

Other schemes abandoned are the Undka-ka-Nalla and Ranigaon schemes near Barmer town.

The engineers have suggested that the following small schemes may be undertaken by the panchayat samitis:—

Scheme						Panchayat Samiti
Sinli Tank	..	..	..	..	..	Pachpadra
Korna	..	..	..	..	..	-do-
Asotra	..	..	..	..	..	-do-
Tirsigare	..	..	..	..	..	-do-
Jasol	..	..	..	..	..	-do-
Balu	..	..	..	..	..	Siwana
Bagunda (near Gungrat)	..	..	..	..	..	-do-
Khakerlai	..	..	..	..	..	-do-
Rayala	..	..	..	..	..	-do-

Except for the Sinli tank, which is an old bund breached 50 years back and will cost about Rs. 30,000 to repair, these small schemes would cost less than Rs. 10,000 each.

From the above description it will be apparent that such irrigation schemes, as there are in the district, are confined to the eastern areas and are designed to make the best possible use of the water in the Luni and the streams that flow into it as well as natural depressions where these occur. In the north and west of the district, where the water problem is most acutely felt, no canal or tank irrigation is possible.

Wells and Tube-wells:—A few experimental tube-wells have been sunk in various places to the water table 200 to 300 ft. below the surface, but none is yet functioning. In the absence of other sources, irrigation in the district is thus almost entirely dependent on

wells. At present, there is a total of 23,485 wells, the tehsil-wise distribution being as follows:—

Barmer	3,773
Siwana	12,621
Pachpadra	6,867
Shiv	5
Chohtan	219
TOTAL ..	23,485

In 1959-60 wells irrigated an area of 18,861½ acres and accounted for all but 16 acres of land under irrigation. Figures of irrigation from the Meli bund are not included. Similarly, in 1958-59, only two acres were irrigated by other sources out of a total irrigated area of 23,487 acres and in 1956-57, wells irrigated 18,182 acres of a total irrigated area of 18,244 acres. In 1955-56 and 1957-58 no other source of irrigation was listed. In 1960-61, wells accounted for the whole irrigated area of 23,327 acres.

Most of the well irrigation is in the eastern tehsil of Siwana, where the total area served in 1960-61 was 12,862 acres. Next came Pachpadra with 6,715 acres, followed by Barmer tehsil with 3,614 acres. The arid tehsils of Shiv and Chohtan had only 16 and 120 acres of irrigated land, respectively, in that year.

Dependence on Rainfall

The farmers have thus to depend almost entirely on the meagre rainfall for their agricultural operations. In 1960-61 only 0.72 per cent of the net cropped area received any irrigation. The percentage in 1955-56 was 0.63.

Irrigation by Sources

(Acres)						
Source	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
Tanks	..	62	..	..	..	..
Tube-Wells ..	..	..	..	..	..	..
Wells ..	17,932	18,182	21,668	23,485	18,861½	23,327
Other Sources ..	..	..	..	2	16	..
TOTAL ..	17,932	18,244	21,668	23,487	18,877½	23,327

Irrigation by Crops

(Acres)						
Crop	1955-56	1956-57	1957-58	1958-59	1959-60	1960-61
1	2	3	4	5	6	7
Cereals and Millets						
1. Jowar ..	132	3	83	463	19	—
2. Bajra ..	—	—	3	4	—	8
3. Maize ..	432½	85	139	151	17	61
4. Wheat ..	14,184	17,494	18,883	19,624	16,035½	19,757
5. Barley ..	491	702	633	624½	572	791
Pulses						
6. Gram ..	19	—	—	—	2	—
7. Tur ..	—	—	—	—	—	—
8. Other pulses	—	—	—	—	—	—
9. Condiments & Spices ..	—	—	349	917	1,195½	894½
10. Fruits & vegetables including root crops ..	—	—	364	457½	449½	561½
11. Other food crops	881	507	3	8	½	12
Oilseeds						
12. Groundnut ..	—	—	—	4	—	—
13. Rape & Mustard	—	—	98	92½	73½	85½
14. Others ..	—	—	4	13½	14½	6½
Miscellaneous crops						
15. Cotton ..	935	98	115	121	19	19
16. Fodder crops	—	—	993	1,007½	476½	1,122
17. Other non-food crops ..	857½	709	1	—	3	9½
(Tobacco)						
TOTAL under all crops ..	17,932	19,598	21,668	23,487	18,877½	23,327

Soil Erosion

There are two major types of soil erosion, viz., sheet and gully erosion. In this district, gully erosion is met with only in the damper eastern tehsils but elsewhere there is considerable sheet erosion as the loose sandy soil is blown by strong winds. The traditional method of checking such erosion is to plant branches of trees along the boundary walls of fields. These branches offer some resistance (though pitifully inadequate) to the winds, the operation being called *kana bandi*.

The district authorities are experimenting with certain species of hardy shrubs which, when planted across the wind direction, should prove more effective in checking sheet erosion than the traditional method.

Contour-bunding:—The slope of the land in the Siwana and Balotra areas varies from 1:200 to 1:250 with the result that, when rain falls, the earth is scoured and mud deposited on the fields, injuring the crops, while the water itself flows on. In order to protect the crops and at the same time retain moisture in the fields for the *rabi* season, a scheme of protective bunds has been introduced in these areas. These bunds are of particular importance to the villages of Rakhi, Bamsin and Mangla in Siwana tehsil, where the river Mitri inundates large area, and also places through which the Undka, Ranigaon, Kawas and Khoriyal streams flow. Rakhi village, incidentally, recently won first prize in an all-Rajasthan competition for contour-bunding. There is also scope for contour-bunding in between sand dunes in the drier areas so that such rain, as does fall may be trapped in selected areas in order to grow better crops.

Water Potential

Between 1947 and 1949, the Geological Survey of India carried out ground water surveys in the Jodhpur and Bikaner areas in order to determine areas, where such water was drinkable and where brackish. One zone of drinkable water claimed to be discovered was around Shergarh, which lies due north of Balotra and near the border of Barmer district. Such explorations, if continued into the district itself, would be of immense value in determining, where tube-wells should be sunk. It is known that over most of north and west Barmer, where the water problem is very acute, the level of the sub-soil water ranges from about 200 to 300 ft.

AGRICULTURE

Soil and Crops

Four types of soil are met with, namely (i) sandy, known as *thal* and occupying three quarters of the entire area, (ii) sandy clay (*nayar*) which is generally heavily impregnated with salt and thus produces very poor crops, (iii) patches of deposited loam (*rel*) near the river beds and (iv) accumulated deposits (*par*) at the foot of limestone ridges. The last two soils, and particularly the river deposits, are excellent for agriculture and often yield two crops, even without irrigation. Most of the loam patches lie in Siwana tehsil; unfortunately, the total area of such soil is very small.

The chief crops are *bajra*, *moong*, *moth*, *til* and *cotton*, which are grown in all but the most arid areas. Wheat is sown on the banks of the Luni and sometimes in the beds of marshes, but is rare elsewhere. Barley is sometimes grown on the banks of the Luni following floods. Water-melons and the *singhara* nut grow in profusion in the bed of the Luni and another gourd, called *tumbu* is common all over, specially in the sandy areas.

Writing of the crops of Mallani, Major C. K. M. Walter, Political Agent in Marwar, wrote thus in 1877:—

“The various kinds of crops grown in Mallani are *bajra*, *moong*, *moth*, *guwar*, *til* and *cotton*; these are sown as soon as the monsoon sets in and are reaped, *bajri* 70 days, *cotton* 90 and the rest 60 to 65 days after sowing. Wheat crops are grown on the banks of the Luni but are very rare in other parts of Mallani. When the rainfall is favourable, however, this cereal is cultivated in marshy lands in the Setrao and Chohtan districts. Barley and sesamum are rarely seen and gram never”. Thus the position has remained largely unchanged for the better part of a century.

There are two main crop seasons, the *kharij* or, as it is usually called here, *sawnu* (*siyalu*) and the *rabi* or *unalu*. The sowing of the *sawnu* (autumn) crops begins with the first rains, usually about the middle of July, and in normal seasons extends up to the end of August, the crops being reaped between September and November. The *unalu* (spring) crops are usually sown in October and November, and are harvested in April and May.

The autumn crops, which are by far the most important and the mainstay of the people, are dependent for their early growth on

the rain during July and the first half of August and for their full maturity on showers in September. A little rain early in October is also very beneficial. In this district, however, the September rains are generally light and irregular and cease altogether before the end of that month, and the hot sun makes "the sky as of brass and the earth as of iron", as the proverb runs.

It has been roughly estimated that the proportion of the *khari*f to the *rabi* output is 11:5. Except where irrigated, the *rabi* crops thrive or fail according to whether adequate cyclonic rain falls in winter. The principal autumn crops are *bajra*, *jowar*, *til*, *moth*, *moong* and the chief cold weather crop is wheat.

Major Crops

Bajra.—*Bajra* or spiked millet is the staple food of the people, and is more extensively sown than any other crop. It is sown with the first fall of sufficient rain in late June or early July and takes from 70 to 90 days to ripen. *Bajra* compares very favourably with *jowar* as a food but the stalks, called *kharia*, are saltish and are consequently sparingly used as fodder but are suitable for thatching huts. The crop is sometimes grown alone, but more commonly mixed with *moth* or *moong*. It is seldom watered or manured. It does best when the climate is moderately dry. *Bajra* never yields as large a crop as *jowar* and it requires more ploughing and weeding than that grain. When the crop is four or five inches high the weeds and grass are cleared. Timely rainfall in August is beneficial and the crop is ready for harvest by the end of September or early in October. Threshing is done only after the *rabi* sowing, till which time the crop is stacked in heaps covered with grass for protection.

The parched ears of *bajra* are called *punkh* or *sars* and are eaten. *Bajra* is chiefly used as a bread grain and its *khich* is also highly relished mixed with *moong*.

In 1960-61, *bajra* accounted for 79.3 per cent of the total cultivated area, the actual area under the cereal being 25,70,898 acres. It is grown throughout the district, though in 1960-61 about half the area under the crop was in Barmer tehsil alone (13,53,238 acres). Chohtan tehsil was next with 5,54,830 acres, followed by Pachpadra and Shiv with 2,90,753 and 2,25,507 acres, respectively. Siwana had 1,46,570 acres under *bajra*.

Jowar.—*Jowar* comes next to *bajra* and wheat in importance, according to 1960-61 figures, a total of 18,485 acres being devoted to

its cultivation in that year. *Jowar* needs rather more rain than *bajra* and is, therefore, grown extensively in the eastern tehsils. It is generally sown after the monsoon has set in properly, i.e., after the middle of July, and is ready for harvest in late October or November. In some areas, where irrigation is possible, *jowar* is sown early in summer for fodder purposes and this crop is ready at the end of May or in early June.

Some *jowar* is normally grown throughout the district, but the drier tehsils of the Shiv and Chohtan contributed no land towards the cultivation of *jowar* in 1960-61. Pachpadra was the largest contributor with 15,103 acres in that year. The crop occupied 3,317 acres in Siwana and 65 acres in Barmer tehsil. The average yield is merely 2 maunds per acre. When the crop is ripe, the heads are cut off and the stalks (*karab*) are carefully stacked and subsequently given to cattle; if, owing to insufficient rain, the crop is not thriving the stalks are often cut while green and stored for fodder; this is called *chipt* and fetches a higher price than *karab*.

Wheat.—The main *rabi* crop, in 1960-61 wheat was grown over an area of 20,584 acres, a total exceeded only by the *khari*f crop of *bajra*. Siwana tehsil, where most of the wells are situated, had 10,610 acres under wheat, followed by Pachpadra (5,838 acres), Barmer (3,277 acres) and Shiv (739 acres). Chohtan had only 120 acres under wheat.

The wheat crop is of two kinds—*piwal* and *sewaj*. The former is grown on land near wells and is irrigated. If irrigated by saline water, it is called *kharchia* and if by sweet water *mithania*; the first variety is considered superior.

The ground is prepared for wheat during the rainy season by repeated ploughings. Sowing begins about the middle of October and seed is applied at the rate of 60 to 100 lbs. per acre. The crop requires three to seven waterings depending on local conditions. Inter-culture is necessary in January and the crop is harvested between April 10 and May 15.

As the crop is usually very dry when harvested, it can be threshed almost at once. The roasted green ears, called *holas*, are much relished, while the straw, known as *khalla*, is used as fodder.

The second of the two kinds of wheat, namely *sewaj*, is grown on flooded land near the rivers known as *rel* or *relani*. The ground

is prepared as in the case of *piwal* and when the rains cease the fields are ploughed to absorb the water. There is no irrigation as such. The wheat produced on such land is called *katha* and is inferior to, and consequently cheaper than, that produced by well irrigation.

Maize.—As maize requires a fair amount of water, it is cultivated in small patches only, the total acreage in 1960-61 being 65. It was sown in Siwana (58 acres) and Pachpadra (7 acres). The crop completely fails in years of low rainfall. Sowing begins after the monsoon has set in. Inter-culture is needed between the end of August and the middle of September and harvesting is done in October or early November.

Barley.—The barley crop, like wheat, requires careful tillage and soil preparation. It is grown only on irrigated land in normal years but in seasons, when the Luni has been in spate, it is grown on flooded land near the river. The sowing period is from October 20 to December 15 and inter-culture is required in January. The harvesting period is from March 25 to April 15. Siwana and Pachpadra were the only principal barley-growing tehsils in 1960-61, though in previous years it had been grown in small areas of Barmer tehsil as well. Of the total area of 791 acres devoted to the cultivation of barley in 1960-61, Siwana had 552 acres, Pachpadra 225 and Barmer only 14 acres.

Pulses

Gram is grown as a rabi crop in Siwana and Pachpadra tehsils generally and that too, over small areas. In 1960-61, it occupied a total area of 119 acres, all of which lay in Pachpadra.

Tur was sown only once (in 1959-60) during the period 1957-61 in Pachpadra over a small area of 6 acres. It was not sown at all in the preceding four years nor in 1960-61. Some pulses such as *moth* and *moong* and *chaula* are also sown as *kharif* crops, the total area occupied by these pulses in 1960-61 being 84,408 acres. The separate acreages were *moth*, (76,881) *moong* (7,526) and *chaula* (1).

Oilseeds

Though a number of oilseeds are grown in isolated patches, *sesamum* is the only one which is widely cultivated. In 1960-61, the area of 33,544 $\frac{1}{4}$ acres under *sesamum* accounted for approximately 99 per cent of the total area under oilseeds. It was cultivated in all the tehsils, though Shiv and Chohtan contributed only 8 and 101 acres, respectively. The area under *sesamum* in other tehsils in 1960-61 was: Siwana (16,470 $\frac{1}{4}$), Pachpadra (16,401) and

Barmer (564). Soil preparation for *sesamum* starts immediately after the first regular monsoon showers and the sowing period extends up to the end of August. Inter-culture is usually done in October and the harvesting season is in November.

Among other oilseeds, castor is grown in Siwana and Pachpadra tehsils mainly, though in 1960-61 Barmer also had 10 acres devoted to its cultivation. In that year, Siwana had 214 $\frac{1}{2}$ acres and Pachpadra 2 (63 acres in 1959-60) acres under the plant, making a total of 226 $\frac{1}{2}$ acres for the district.

Groundnut occupied an area of 7 acres in 1960-61, being sown in Siwana (4 acres) and Pachpadra (3 acres) only. In earlier years, it was either not sown at all or sown in very small quantities, except in 1959-60, when 187 acres were devoted to its cultivation. In 1955-56, in the whole of the district there were only two acres in Siwana tehsil devoted to groundnut cultivation and in 1956-57 and 1957-58 it was not sown at all. In 1958-59, it was sown in Siwana tehsil only on an area of 4 acres. The soil preparation for groundnut starts soon after the first showers and the sowing period ends in mid-August. The crop is ready by the middle of October.

In 1960-61, rape and mustard together covered an area of 86 $\frac{1}{4}$ acres, some being sown in all tehsils, except Chohtan and Shiv. Pachpadra tehsil contributed 46 acres, followed by Siwana (39) and Barmer tehsil (1 $\frac{1}{4}$ acres). Rape and mustard belong to the *rabi* group of crops. The soil is ploughed after the rains and sowing is completed by the middle of November. Inter-culture is carried out from the middle of December to the end of January, and the mustard crop is harvested in the latter half of March. Rape is usually ready in February.

Linseed is not regularly cultivated and in 1958-59, 1959-60 and 1960-61 was not sown at all. In 1957-58 and 1956-57 only one acre was sown in Siwana tehsil. In 1955-56, however, the area under linseed was 15 acres, all in Siwana.

An area of 42 acres (32 in Barmer and 10 in Pachpadra) was under other oilseeds in 1959-60. Such area in 1960-61 has not been specified.

Only cotton and *sesamum* among the cash crops are regularly cultivated. Cotton is grown in three tehsils, viz., Barmer,

Siwana and Pachpadra, Siwana being the main grower. In 1960-61, Siwana had 479 acres under cotton, while Barmer and Pachpadra had only 53 and 48 acres, respectively. No other fibre crop was raised in 1960-61.

Mesta was cultivated in 1957-58 and 1959-60 on 3 and 7 acres, respectively. Tobacco occupied 4 acres in 1959-60 and $9\frac{1}{4}$ acres in 1960-61 and in the previous four years was not cultivated.

Condiments and Spices

Condiments and spices also are rarely grown, though the cultivation of chillies is fairly regular in the tehsils of Barmer, Siwana and Pachpadra. In 1960-61, a total of 181 acres was under chillies, 134 acres in Siwana, 27 in Pachpadra, 17 in Barmer and 3 in Shiv. An area of $715\frac{1}{2}$ acres was under other condiments in 1960-61, the break-up for individual commodities being *dhaniya* or coriander seed (1 acre), *zeera* or cummin seed (629 acres), *lasan* or garlic ($10\frac{1}{4}$ acres) and *methi-alsiya* ($75\frac{1}{4}$ acres).

Fruits and Vegetables

Because of the arid nature of the area, fruit gardens are practically non-existent as they require a plentiful supply of water. In 1960-61, only 18 acres were devoted to the growing of fruit. Where water is available, some vegetables such as potatoes, sweet potatoes and onions are grown. In 1960-61, however, these vegetables occupied only $9\frac{1}{4}$, 11 and 376 acres, respectively. Other *rabi* season vegetables were grown on 134 acres in 1960-61 and *kharij* vegetables on 26 acres. Thus, fruit, and vegetables combined accounted for an area of only $574\frac{1}{4}$ acres in 1960-61.

Agricultural Production

In 1959-60, which was a normal year, the average yield per acre for *bajra*, the principal crop, was about 2.6 maunds per acre. The total production of *bajra* in that year was 2,11,374 tons—about 21 per cent of the total production of *bajra* in Rajasthan as a whole. Wheat production was 20,736 tons (average 10.7 maunds per acre) or roughly 2 per cent of the total wheat production in the State. The production of other important crops in 1959-60 was as follows:—

Jowar 1,334 tons, *Barley* 279 tons, *Maize* 8 tons, *Rape and Mustard* 24 tons, *Gram* 638 tons, *Sesamum* 1,672 tons, *Kharij pulses* 7,836 tons, *Potato* 10 tons and *Groundnut* 27 tons.

The production figures for 1960-61 were as follows:—

						(Tons)
Bajra ..	..	..	..	..	..	1,56,965½
Wheat ..	..	..	..	..	..	4,970
Jowar ..	..	..	..	..	..	1,820½
Barley ..	..	..	..	..	..	1,186½
Maize ..	..	..	..	..	..	8
Rape and Mustard ..	..	..	..	..	..	22
Gram ..	..	..	..	..	..	1,628
Sesamum ..	..	..	..	..	..	1,197½
Kharij pulses ..	..	..	..	..	..	16,189½
Potatoes ..	..	..	..	..	..	2½
Ground nut ..	..	..	..	..	..	1

Crop pattern

The crop pattern has remained largely unchanged over the years. The district does not grow sufficient grain to feed the increasing population and, therefore, the emphasis must remain overwhelmingly on food crops. There is also the important fact that crops like cotton, tobacco and other cash crops, spices, fruit and vegetables all require irrigation, which is lacking in this area.

Thus, there is no instance in recent years of a substantial increase in the area under a cash crop. In fact, only two such crops—cotton and sesamum have regular cultivation on a noticeable scale. As regards the introduction of new crops, the District Agriculture Officer is trying to introduce cummin seed (*zeera*), for which the soil and climatic conditions in the district are favourable.

The following statement shows the areas under various Crops in Barmer district during the period 1955-61.

Areas under crops

Year	Tehsil	Jowar	Bajra	Maize	Wheat	Barley	Other cereals	Gram	Other Pulses
	2	3	4	5	6	7	8	9	10
1955-56	.. Barmer	62,165	4,96,400	180	3,280	—	—	60	27,000
	Siwana	4,092	1,05,709	75½	12,389	1,187	—	3,275	13,890
	Pachpadra	26,933	2,78,046	206	11,426	158	—	1,134	18,983
	Shiv	3,627	2,52,654	—	13,604	—	—	—	19,852
	Chohtan	11,650	4,65,345	—	—	—	—	—	21,118
TOTAL		1,08,467	15,98,154	461½	40,699	1,345	—	4,439	1,00,843
1958-59	.. Barmer	92½	11,20,121	8	3,421	12	—	—	42,056
	Siwana	3,207½	1,09,887½	112	11,654	571	3,944	1,124	28,021
	Pachpadra	7,261½	2,33,076	43	5,458	201	107	90	43,371½
	Shiv	14	2,03,134	—	170½	—	—	4	5
	Chohtan	—	4,66,203½	—	219	—	—	—	11,857½
TOTAL		10,575½	21,32,422	163	20,922½	784	4,051	1,218	1,25,311
1960-61	Barmer	65	13,53,238	—	3,277	14	—	—	23,786
	Siwana	3,317	1,46,570	58	10,610	552	—	—	17,440
	Pachpadra	15,103	2,90,753	7	5,838	225	3	119	41,274
	Shiv	—	2,25,507	—	739	—	—	—	2
	Chohtan	—	5,54,830	—	120	—	—	—	1,906
TOTAL		18,485	25,70,898	65	20,584	791	3	119	84,408

Year	Tehsil	Groundnut	Castor	Sesamum	Rape & Mustard	Other oilseeds	Cotton	Other cash crops	Citrus	Others
1	2	3	4	5	6	7	8	9	10	11
1955-56	Barmer	—	—	90,400	40	—	600	—	190	10
	Siwana	2	37½	12,369	63	15	339	4	37	31
	Pachpadra	—	9	43,196	6	—	1,163	1	257	17
	Shiv	—	—	60,166	11	—	800	—	1	—
	Chohtan	—	—	70,800	—	—	860	—	—	—
TOTAL ..		2	46½	2,76,925	120	15	3,762	5	485	58
1958-59	.. Barmer	—	9	731	4½	4½	21	—	12	37
	Siwana	4	573	16,206	90	14	514	—	47	462
	Pachpadra	—	30	12,048	21	—	36	—	16	352
	Shiv	—	—	7	29½	13½	—	—	—	—
	Chohtan	—	—	39	—	—	—	—	—	—
TOTAL ..		4	612	29,031	145	32	571	—	75	851
1960-61	.. Barmer	—	10	564	1½	—	53	—	17	80½
	Siwana	4	214½	16,470½	39	—	479	1½	134	376
	Pachpadra	3	2	16,401	46	—	48	8	27	259
	Shiv	—	—	8	—	—	—	—	3	—
	Chohtan	—	—	101	—	—	—	—	—	—
TOTAL ..		7	226½	33,544½	86½	—	580	9½	181	715½

Fruits and Vegetables

(Acres)

Year	Pome fruit	Potato	Sweet potato	Onion	Others	Total
1955-56	..	9	-	154	135	298
1958-59	..	2	-	25	445½	472½
1960-61	.. 18 (Water melons)	9½	11	376	160	574½

Agricultural Operations

Agricultural operations are still carried out under the influence of certain astrological conditions, particular attention being paid to the 27 *nakshatras* and the occurrence of certain auspicious conjunctions.

Ploughing. On *Akhatiji*, third day of the bright half of *Vaishakh* (May), the farmer starts his operations by harrowing his field twice, first length-wise and then across. When new land is brought into use, bushes and shrubs on it are cut and either burnt on the spot in order to fertilize the soil or used as fences. The ground is then roughly levelled. This clearing process is called *sur*.

The actual ploughing operations usually begin with the first fall of sufficient rain, or even earlier in the case of clay soils. The ground is ploughed once, twice or three times according to the stiffness of the soil, these three ploughing being respectively called *phur*, *chank* and *bijari*. In some cases four or five ploughings are necessary. For the *rabi* crops, four to eight ploughings are done in September or October. Either a camel or a pair of bullocks is yoked to each plough, though sometimes donkeys and buffaloes are also used. On an average, the ordinary plough turns over half an acre of land in a day.

Muraring. The dung of sheep and goats and village refuse are used as manure. Cow dung is also used by some farmers, but as it is also a much used source of fuel, little is available for manurial purpose. Herders of sheep, goats and camels are often paid in kind or cash to graze their animals on fallow fields.

Sowing. The process of sowing is called *bijari*. The seed is sometimes scattered broadcast, especially in the case of *til*, or sown in lines by means of a bamboo drill attached to the plough. The

kharif sowing usually begins under *Ardra nakshatra* after one or two showers. *Jowar* and other *Kharif* crops are sown with the *nai*. Farmers ordinarily wait for the auspicious time (*mahurat*) for sowing, which is fixed by the village priest or astrologer.

When the sowing of the *kharif* crop has been completed, the preparation of fields reserved for the *rabi* crops is started. Ploughing is carried out when there is a break in the rains to eradicate weeds and open out the soil to absorb moisture. In the month of *Asoj* or *Kartik* ploughing is done for the last time and then the seeds are sown. Wheat is generally sown with the *nai* under the *Swati nakshatra* and gram in *Hasta*. If the monsoon has been below normal and no rain falls between October and the beginning of November, the sowing of the *rabi* crops may be abandoned in the non-irrigated areas. Generally, seed from the previous year's crop is used, the local belief being that seeds lose their germinating value, if kept for a very long period.

Weeding.—The *rabi* crops require no weeding, but 15 days after the *kharif* crops have been sown and the seedlings are about 8 inches high, a harrow is passed between the rows of young plants to remove weeds. Two weeks later the process is repeated and, about a week after this, if the soil is workable, the plants are thinned by hand; for *jowar* and *bajra* the distance plants ranges from 12 to 18 inches. A week or two after the thinning has been completed the field is weeded by hand (*nindal*).

Protection.—From the time the grain commences to form, the crop has to be protected from the ravages of birds, cattle, deer and wild pig. Scare-crows are erected and usually a woman or a boy sits on a scaffold (*dagla*) raised 10 to 12 feet above the ground, from which point of vantage stones can be hurled from a sling (*gophan*). Other means used to scare away birds and animals are a whip made from the fibre of *sann*, called *phatakhs*, or beating an empty kerosene tin.

Harvesting.—The reaping (*duchni* or *laoni*) is done by men called *denagtyas*, meaning daily wage workers, or *barias* at the rate of about a bigha a day per head. Stalks bearing ears such as *haira*, wheat and barley are cut with a sickle (*dantli*) while those bearing pods, such as gram, are up-rooted. Pulses are mostly cut as whole

plants. Vegetables are picked by hand and leafy ones are uprooted. Root crops like potatoes and groundnuts are harvested by digging with spade. They are placed by the reaper in a bag (*jholi*), worn on the body and when the bag is full the produce is deposited at a pre-arranged spot, whence it is carried by cart or camel to the threshing floor.

Threshing.—The *khals* or threshing floor is usually located in the vicinity of the village site. The ground is made hard and even by watering and ramming with a wooden mallet, after which a coating of cow-dung is applied. The process of threshing is called *gaita*. An upright post (*mod*), about 6ft. high, is fixed in the centre and a thick wall of brambles is built around.

The stalks are strewn over the floor around the post and trampled by two or four bullocks yoked abreast to the post. This operation is called *gahna*.

Winnowing.—The next process is that of winnowing (*upanna*). After the grain has been released, it is collected in a heap and then winnowed. Three persons are required for the process; one stands on a stool (*tarpava*) about 3 ft. high; the second hands him the baskets of grain and chaff which are slowly emptied into the wind and the third person separates the fallen grain from the chaff with the aid of a broom. The chaff (*bhusa*) is used as fodder for cattle. The cultivators are in the habit of keeping a *dantli* (sickle) or a plough-share (*kusva*) buried in the grain in order to ward off evil spirits.

Implements

The field implements used by the agriculturists are largely of the old type. The main implements are ploughs, harrows, levellers, clod-crushers, seed-drills and hoes.

The clod-crusher (*kuri* or *savar*) is a heavy log dragged over the fields by bullocks to level the ground and gather together some of the weeds. The indigenous plough, leveller, etc., are also made of wood, the seed-drill being of bamboo.

Apart from these bullock-drawn implements, there are several hand tools used in agricultural operations. The main tools are the *kurhad* (axe), *kuladi* (pick-axe), *phawada* (spade), *khurpi* (weeding hoe), *dantli* (sickle), *kovata* (bill-hook), *panar* (crowbar) and the *dantali* (rake with wooden teeth). These are usually made by the village carpenter or iron smith.

The principal harvesting tool is the *vila* (sickle). The *kuladi* (pick-axe) is used for harvesting root crops. The *phawada* (spade) is used in repairing and making bunds and water channels and filling the field with soil and manure. The *panar* (crow-bar) either wooden or iron toothed, is used for collecting and removing waste materials from the fields. Each working member of a cultivator's family possesses a *khurpi* and a *dantali*. The *kovata* and the *kurhad* are used for cutting shrubs and trees, respectively. With the *panar* (crow-bar) clods and stones are lifted and holes dug.

Attempts are being made to introduce improved types of implements, but progress has been slow as such implements are in short supply. Thus, in 1960-61, there were only 1,085 iron ploughs in the district as against 1,16,268 wooden ploughs.

Large-scale cultivation is still very rare. Such cultivation is only possible through mechanized farming and there were only 33 tractors in the district in 1960-61.

The Agriculture Department is trying to popularize the use of iron persian wheels, iron *charas* (buckets) as well as implements such as the soil-turning plough, bund-former and *triphali*. The last two are already in evidence and number about 100 and 50, respectively. The following table shows the main agricultural implements in use in the district during the period 1956-61:—

Implements					1955-56	1959-60	1960-61
1. Wooden Ploughs	..	..	..	..	99,438	1,16,566	1,16,268
2. Iron Ploughs	..	..	..	..	386	1,203	1,085
3. Carts	..	..	..	..	11,679	13,763	14,358
4. Cane Crushers	..	..	..	..	—	—	—
5. Oil Engines	..	..	..	..	10	29	70
6. Electric Pumps	..	..	..	..	—	—	2
7. Tractors	..	..	..	..	9	19	33
8. Ghanis (more than 5 seers)	..	..	..	..	103	153	216
9. Ghanis (less than 5 seers)	..	..	..	..	61	64	Not available

The following numbers of improved agricultural implements were distributed during 1960-61:—

Ploughs	183
Chaff cutters	52
Seed drills	31
Bund formers	59
Mote wheels	83
Iron charas	246
Bakkhar (leveller)	16
Hand Hoes	3

Seeds

In order to improve yields, the district agricultural authorities are distributing improved types of seed for various crops. As regards wheat, the RS 31-1 variety has been tried with success and there is a proposal to introduce the RS 9-11 variety developed at the Durgapura farm at Jaipur. For *bajra* selected seeds of the local Mallani variety are being distributed and for castor the H 6 quality. The Department is also supplying improved varieties of cotton and groundnut seeds, the latter having been obtained from Sawai Madhopur. Thus for most of the major crops improved varieties of seeds are being popularised; unfortunately, supplies are still very short. During 1959-60, the Department was able to distribute the following quantities of seeds: wheat 5,229½ maunds, *bajra* 4,694 maunds, *jowar* 150 maunds and *gwar* 900 maunds. Vegetable seeds are being distributed through the panchayat samities. The Department maintains a Seed Multiplication Farm at Samdari. During 1960-61, the following quantities were distributed: wheat (RS 31-1, NP 718, C 591) 4,282½ maunds, *bajra* 3879 maunds, *gwar* 130 maunds, *ceera* 7 maunds, castor 1 maund, cotton 10 maunds, groundnut 2¼ maunds and vegetable seeds 1,053 lbs.

Rotation of Crops

Though the benefits of crop rotation are very well known to the cultivator, it is practised in a rather haphazard manner. One common method in the *kharif* sown areas is to plant *bajra* for two years, leave the land fallow for a year, then sow *jowar* or *til* and finally revert to *bajra* again.

Rotation is most common on land suitable for both *rabi* and *kharif* crops. Such fields generally bear a *kharif* crop in one year and a *rabi* crop the next year, provided that either of the two crops

is wholly or partially a pulse; a pulse crop is invariably grown at least once in two years.

In rich fields capable of growing *rabi* crops, *jowar* is usually alternated with wheat or gram. In poorer fields, cotton takes the place of *jowar*. Sometimes, *jowar* is sown in the first year, wheat or gram the second year, and cotton, or another pulse in the third year. *Tilli* and *rameli* or *ram til* are grown to improve the fertility of the soil. Similarly, when there are good winter showers, a gram crop is grown in order to obtain a good crop of cotton the next year. The *khar* from the gram stalk, it is believed, increases the fertility of the field.

Manures and Fertilisers

Apart from the traditional practice of leaving a field fallow occasionally to enable it to recover from the strain of crop-bearing, manure is added to enrich the soil in irrigated areas and in fields near the villages. However, even now the greater part of the land under cultivation receives manure only as a result of animals grazing on it.

The district agriculture authorities are trying to popularise the use of manures and in 1959-60, distributed, 34 tons of town compost and 1,177 tons of village compost. Also 610 compost pits were dug. Efforts are being made through the development blocks to induce the villagers to give up the use of cow-dung as fuel. The Municipal Committee at Balotra is arranging for the use of town compost as manure. Artificial fertilisers are also in use but at present in small quantities. The amounts distributed through the Department in 1959-60 and 1960-61 were as follows:

	1959-60	1960-61
1. Ammonium Sulphate	49 tons, 19 cwt.	39.4 tons
2. Calcium Ammonium Nitrate	6 tons, 15 cwt.	5.3 tons
3. Super-phosphate	10 tons, 1 cwt.	0.7 tons
4. Urea	—	2.2 tons

Agricultural pests and diseases

The most destructive crop pest is the *phadka* (*Hieroglyphus nigrorepletus*). It is a hopper, resembling the locust and measuring from 1½ to 2½ inches. Though present throughout the year, it intensifies its activities during the monsoon, attacking the *kharif* crops of

maize, *bajra*, *jowar* and pulses. The main insecticides used against it are benzene hexachloride, aldrin and calcine arsenate. To eradicate destruction by other insects, various insecticides such as aldrin, D.D. T., agrosan and bordo mixture, zinc phosphide and sulphur dust are used. Among other pests, some destruction of crops is caused by the desert jerboa rat, which digs up the fields and makes granaries against emergency. Occasionally, a large variety of brown rat, the antelope rat, over runs the area and destroys the crops when green by eating the roots and when in ear devouring the heads of grain. This pest then disappears as quickly as it comes.

Locust damage used to be considerable till about a decade back, but the concerted efforts of the anti-locust organisation of the Government of India and international co-operation aided by specialised agencies of the United Nations have been able to control the menace to a certain extent and it has been possible to reduce the extent of the damage thus caused. The anti-locust organisation comprises two sections, known as the Intelligence and the Technical Wings. The Intelligence Wing patrols the susceptible areas and provides information on locust breeding, visits of swarms from outside and their course, etc; the Technical Wing goes into action on the strength of this information.

The important crop diseases are the green ear disease of *bajra*, powdery mildew, rust smut.

DEPARTMENTAL ACTIVITIES

The District Agriculture Office, in conjunction with the community development officials and the panchayat samities, tries to improve crop production by suggesting better methods of cultivation through actual demonstrations, supplying better seeds and fertilisers and taking steps to eradicate crop diseases and pests. A sum of Rs. 13,500 for the development of a local manurial reserve and distribution of fertilisers and another sum of Rs. 1,63,800 under the seed scheme had been spent up to 1959-60 as part of the second Five Year Plan. Plan expenditure on minor irrigation works during the same period came to Rs. 2,46,250.

The departmental activities also extend to land improvement and distribution of loans. On the occasion of the Tilwara fair, film shows and village leader camps are organised.

At present, the Department is running only one Seed Multiplication Farm at Samdari. This farm, which covers an area of 100 acres, was established in 1958-59. It has its own tractor and pumping set.

Taccavi loans are distributed regularly to help agriculturists improve their farms and also during lean years to relieve distress. The following amounts were distributed during 1958-59, 1959-60 and 1960-61:—

			(Rupees)		
			1958-59	1959-60	1960-61
Wells	..	..	41,500	10,000	59,650
Pumping sets	..	..	1,06,250	3,000	2,500
Tractor	..	..	8,000	15,000	—
Persian Wheels	..	..	15,000	15,000	1,000

ANIMAL HUSBANDRY

Area under fodder crops

The area under fodder crops in 1960-61 was 5,07,773 acres, i.e., 15.64 per cent of the total cultivated area of the district. The following table shows the area under fodder crops since 1955-56:—

					(Acres)
1955-56	..	..	..	..	6,75,432
1956-57	..	..	..	..	4,60,868
1957-58	..	..	..	..	4,95,979
1958-59	..	..	..	..	5,02,143½
1959-60	..	..	..	..	6,52,812½
1960-61	..	..	..	..	5,07,773

In years of sufficient rain, which are few and far between, the district is self-sufficient in regard to fodder, but generally herders migrate eastwards during the summer, returning with the first monsoon showers. Almost every year some parts of the district are declared famine areas and the government opens fodder depots where sale is made at subsidised rates. The principal fodder crops are the *bhurut* (*cenchrus catharticus*) and *siwan* (*panicum frumentaceum*).

Cattle

As conditions in the desert are not conducive to agriculture, a large section of the agricultural population depends on herds of cattle and sheep for subsistence. The cattle of Mallani are famed for their size and good appearance and are reared in such numbers that there is a constant supply available for export to neighbouring districts and the States of Gujarat and Madhya Pradesh. Generally,

the herds are not housed but are allowed to roam over the vast uncultivated tracts where, in normal years, they obtain sufficient nourishment from wild grasses. As the summer approaches, however, and the pastures are exhausted, the herders migrate in search of temporary feeding-grounds.

Some of the bulls are very large and have massive horns and humps. When well taken care of and stall-fed, the milch cows give from five to ten seers of milk. In 1960-61 there were more than 5,30,146 cattle in the district.

Buffaloes are largely confined to the less dry tehsils of Siwana, Pachpadra and parts of Barmer. In 1960-61 they totalled 26,532 or only about 5 per cent of the total number of cattle.

Camels

The best riding camels in the whole of Marwar come from Shiv and are known as Rama Thalia; they are said to be able to cover 80 to 100 miles in a night without difficulty. The Barmer area also has good riding camels but they are inferior to the Rama Thalia breed. Ordinary camels are used for draught purposes. The district has nearly 72,824 camels (1960-61) and large numbers are bought and sold at the annual Tilwara fair.

Sheep and Goats

Sheep are extremely important to the economy. In 1960-61, the district had 6,15,773 sheep. The number of sheep per square mile is about 63.56 and the number of sheep and human beings are almost equal in the district. The important breeds are the Jaisalmeri and the Marwari.

The Jaisalmeri breed is heavily built. The face is black or brown. The long nose, ears and tail gives this sheep an impressive appearance. The Marwari breed is more stockily built. It is a black-faced sheep with medium or short ears and is a hardy animal.

The Marwari ewes weigh between 50 and 65 lbs. while rams of the same species tip the scale anywhere between 60 and 80 lbs. The Jaisalmeri ram weighs between 70 and 100 lbs. and the ewe between 65 and 80 lbs.

There has been no attempt to introduce exotic breeds like the Merino, because such animals are unlikely to survive the rigours of the climate and the lack of lush grass.

Sheep-breeding and allied industries provide employment to a large number of people. The average wool yield is 10 to 14 *chhataks* for the Jaisalmeri breed and 8 to 12 *chhataks* for the Marwari breed. The Jaisalmeri breed takes four to seven clippings every year while the Marwari breed takes only two to four. Both breeds produce medium and coarse wool, suitable for carpets.

There is a Superintendent for Sheep and Wool Development stationed at Barmer. A sheep and wool Extension Officer is posted at Shiv and Stock Assistants at Barmer, Balotra, Siwana and Pachpadra. The Stock Assistants are given a supply of rams for controlled breeding over 5,000 sheep within a radius of 10 miles from their headquarters. The four centres together control a total of 314 key flocks, the distribution being as follows:—

Balotra	..	..	..	103 flocks
Siwana	..	..	..	77 "
Pachpadra	..	..	..	102 "
Barmer	..	..	..	32 "

Like sheep, goats also are prolific and number 8,93,544 about half as much again as the human population. Nearly half the goat population of the district is in Barmer tehsil alone. Goats are kept as domestic animals by almost every rural family. Goat hair is used as raw material in the *jatpatti* industry.

Horses

Among domestic animals, the horse has always stood first with Rajputs. In this district, in certain areas the Thakurs have long bred horses, which are noted for their hardiness and ease of pace. They grow to a good height and, though light-boned, can carry heavy weights and go long distances without food and water. About 1,000 horses are brought for sale from this and other parts every year to the Tilwara fair. The total number of horses in the district exceeds 3,000.

Others

Other domestic animals include that useful beast of burden, the donkey, which numbered 24,017 in 1960-61. Mules are rarely seen, their number being only 18 and pigs are generally not kept. Poultry, too, are rare and numbered only 1,737 in 1960-61.

Improvement Measures

There are no model government farms in the district for cattle, sheep or poultry breeding but small experimental units started in the development blocks are now under the control of the panchayat samities.

Sheep improvement measures have already been described. There are also schemes aimed at improving the quality of cattle through the use of bulls of the Kankrej and Tharparkar breeds in key village units.

Notable among private cattle farms is one started by Rawal Gulab Singh of Sindhari in S. 1990 (1933 A.D.). It is primarily a cattle-breeding farm, though other animals are also kept. In 1956, there were 500 animals on the farm of which 400 were of pure Kankrej breed, while the others were mixed Kankrej and Gir stock. The farm has steadily been expanded and at the end of 1960-61 had 1,000 Kankrej cattle, 150 Murrah buffaloes, 50 Mallani mares and three Mallani horses. Situated at the village of Goena nine miles from Sindhari, the farm produces about 50 breeding bulls every year. Most are bought by the Government or the panchayat samities and fetch an average price of Rs. 800/-.

Other private breeding centres, though less important, are a poultry farm at Jasol, owned by a co-operative society and donkey breeding farms in the Gura Mallani and Sindhari panchayat samiti areas.

Under a camel improvement scheme, owners of selected camels are given a subsidy of Rs. 25 per month till the animals attain the age of six years. They are then either bought by the Government for their own schemes or sent to farms under private management to be utilized for breeding purposes. Old and unhealthy animals are castrated.

The following table shows the animal husbandry improvement activities in the district during 1959-60:—

S.No.	PANCHAYAT SAMITIES			Total
	Siwana	Balotra	Shiv	
1. Cattle Breeding Units ...	8	2	3	13
2. Sheep Breeding Units ...	2	—	4	6
3. Poultry Breeding Units ...	1	—	—	1

4. Bull Distribution	9	2	14	25
5. Ram Distribution	60	5	48	113
6. Poultry Distribution	100	—	—	100
7. Castrations	537	249	959	1,745
8. Inoculations	4,400	1,900	3,635	9,935
9. Animals treated	36,759	1,097	1,910	39,766

Cattle Fairs

There is only one major cattle fair in the district, the Tilwara Fair, held annually at Tilwara village in the bed of the Luni river. It is held every year in the month of *Chaitra* between *Krishna Paksha Gyaras* and *Shukla Paksha Gyaras*. In former days it was organised by the Jasol Rawal, who charged small fees from the participants. When the number of participants mounted and the income consequently increased, the Revenue Department of the former Jodhpur State took charge. With the merger of States, this responsibility devolved on the District Animal Husbandry Officer.

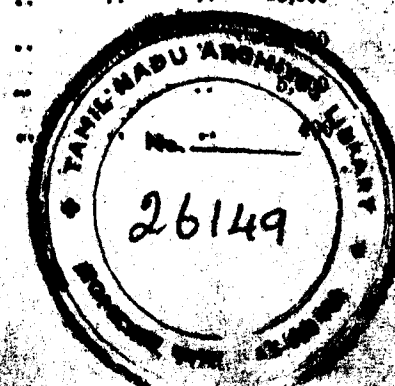
As regards the origin of the fair, the story goes that Rawal Mallinathji, who ascended the throne of Mehva in Samwat 1431 (A.D. 1374) was regarded as a *Siddha*, a man who had attained super-human powers. People from far and near congregated to have the *darshan* of the ascetic Rawal. Some of the animals, which brought their masters to the spot caught the eye of prospective buyers. Small transactions thus took place, and commercial importance began to be attached to the occasion. Even after the death of the Rawal (1399 A.D.) people continued to congregate once a year to worship at the temple constructed in his memory.

The first regular fair was held by Mota Raja Udai Singhji in Samwat 1650 (1593 A.D.) and since then has grown in importance. The fair ground is now connected by a railway line, which goes right up to the site.

In 1875, the following livestock was brought to the fair for sale:—

Young cattle	15,000
Full-grown cattle	
Camels	
Horses	

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In 1959-60, by way of comparison, the following numbers were brought and sold:—

					Brought	Sold
Cattle	..	..	..	..	45,710	16,535
Buffaloes	..	..	..	..	69	9
Horses	..	..	..	..	1,000	543
Camels	..	..	..	..	12,062	5,781
Donkeys	..	..	..	..	995	742

A comparison of these figures illustrates the growth in importance of the fair. The Animal Husbandry Department derived an income of Rs. 1,40,068.20 on this occasion.

The highest prices quoted at the fair for various animals were as follows:—

					(Rs.)
Bullocks	..	..	..	..	1,400
Camels	..	..	..	..	1,200
Horses	..	..	..	..	1,200
Donkeys	..	..	..	..	105
Buffaloes	..	..	..	..	130

Livestock Figures

The following table (compiled from Land Records figures) shows the livestock position in the district in 1960-61. Figures for 1956 are also given for purposes of comparison:—

			1956	1960-61	Increase (+) or Decrease (-)
Cattle					
1. Males over 3 years	..	..	88,477	1,14,713	
(a) Breeding	..	..	1,507	1,401	
(b) Working	..	..	86,092	1,06,582	
(c) Others	..	..	878	3,750	
2. Females over 3 years	..	..	2,30,586	2,46,172	
(a) In milk	..	..	95,001	1,26,955	
(b) Others	..	..	1,35,525	1,19,217	
3. Young stock	..	..	1,54,625	1,72,261	
TOTAL CATTLE	..	..	4,73,688	5,30,146	+56,458

1	2	3	4	5	
Buffaloes					
1. Males over 3 years	..	..	1,897	2,179	
(a) Breeding	..	..	138	135	
(b) Working	..	..	1,702	1,918	
(c) Others	..	..	57	126	
2. Females over 3 years	..	..	13,466	12,705	
(a) In milk	..	..	7,381	8,192	
(b) Others	..	..	6,085	4,513	
3. Young Stock	..	..	10,904	11,648	
TOTAL BUFFALOES			26,267	26,532	+265
<i>Sheep</i>	..	..	4,71,074	6,15,773	+1,44,699
<i>Goats</i>	..	..	6,87,994	8,93,544	+2,05,550
<i>Horses</i>	..	..	2,014	3,008	+994
<i>Mules</i>	..	..	19	18	-1
<i>Donkeys</i>	..	..	18,540	24,017	+5,477
<i>Camels</i>	..	..	51,227	72,824	+21,597
<i>Pigs</i>	..	..	3	—	-3
TOTAL ANIMALS			17,36,826	21,65,862	+4,35,036
<i>Poultry</i>	..	..	1,901	1,737	-164

Animal Diseases

The most common cattle diseases are pleuro-pneumonia or *mota rog* (which accounts for more than 60 per cent of the fatalities), rinderpest (*mata*) and liver fluck; the lesser diseases are the foot and mouth disease, surra, haemorrhagic septicaemia and black quarter. Before the introduction of modern veterinary facilities (and even now in the more remote areas) herders used to apply certain traditional herbal remedies, which were sometimes effective in less serious cases.

Camels are afflicted by two diseases locally called *kalia* and *tibarsa*, respectively. An animal attacked by the former is said to shiver, fall down and expire. The indigenous treatment is to slit the ears and, if no blood issues, the animal is left to die. *Tibarsa* is a sort of remittent fever, lasting sometimes for as long as three years; the patient avoids sitting in the moonlight, seeks shade, and gradually wastes away.

The diseases of the buffalo are *jhenja*, a skin disease disappearing in three days, if promptly attended to and *chiri*, an affection of the lungs, causing the animal to run at the mouth and refuse food and terminating fatally within 12 hours if proper remedies are not applied.

Goats suffer from (i) *galtiya*, a disease of the throat, which can be cured by lancing the affected part where a poisonous fluid has collected, (ii) *burkiya*, when the animal goes round in a circle till it exhausts itself, falls and expires, (iii) *pephuria*, an affection of the lungs and (iv) *mata* (rinderpest), which is very fatal when it appears and usually carries off more than half of the flock.

The sheep is immune from rinderpest but anthrax sometimes assumes epidemic form. Among other sheep diseases mention may be made of sheep-pox, contagious pneumonia and parasitical diseases. Since June 1959, the office of the Sheep and Wool Development Superintendent has been carrying out mass disease preventive measures to protect the flocks, which are of great importance to the economy of the district.

The following table shows the deaths among livestock from some of the more important diseases:—

(Year 1959-60)								
S.No.	Disease					Attacked	Died	
1.	Rinderpest ..	..	..	..	..	2,159	104	
2.	Haemorrhagic septicaemia	..	..	..	..	105	4	
3.	Black quarter ..	..	..	..	..	102	36	
4.	Foot and mouth disease	..	..	..	..	306	5	
5.	Pleuro-pneumonia ..	..	..	..	..	3,090	745	
6.	Liver fluke ..	..	..	..	..	1,642	251	
7.	Sheep-pox ..	..	..	..	..	10	5	
8.	Surra ..	..	..	..	..	205	12	
9.	Parasitic Diseases ..	..	..	..	..	92	9	

Veterinary Hospitals

There are three veterinary hospitals in the district, situated at Barmer, Balotra and Siwana, respectively. There are also veterinary dispensaries at Shiv, Chohtan and Pachpadra under the panchayat samities. A mobile dispensary visits outlying villages.

During 1959-60, the hospitals and dispensaries treated a total of 32,679 cases. A total of 4,462 castrations were performed.

NATURAL CALAMITIES

As the district lies in the arid zone and the soil in general is extremely porous, floods are out of the question except on land bordering the Luni and its tributaries in years of exceptionally heavy rain.

For the same reason famine is so much a part of the life of the region that it excites no comment. Every year, in various parts, there occurs an abnormal scarcity of water, grass or grain. It is only when these three scarcities are felt simultaneously that the inhabitants are aware that there is a famine. Thus Col. Tod refers to famine as the "grand natural disease of the desert region".

There is no recorded history of famines in the district, but it is indicated in various sources of information that Mallani was visited by severe famine in the following years: 1485, 1661-62, 1792, 1804, 1812-13, 1833-34, 1837-38, 1848-49, 1850-51, 1853-54, 1868, 1869, 1877-78, 1891-92, 1895-96, 1898-99, 1899-00, 1905-06, 1915-16, 1918-19, 1921-22, 1925-26, 1928-29, 1936-37, 1938-39 and 1940.

Occasionally, the local rulers must have taken steps to relieve distress, but in general the practice appears to have been for the rural population to migrate to Malwa or Gujerat along with their herds, returning when conditions improved. In fact, the migration of herders continues to be an annual feature, increasing in volume in exceptionally bad years.

In recent years, the Famine Relief Department of the State Government has been keeping a careful watch on the situation and, as soon as famine conditions are thought likely to develop in any particular area, ameliorative measures are taken in advance. The usual steps include the opening of fodder depots in the affected areas, sending of water supplies to pre-arranged spots, taccavi loans, remission of land revenue (in the case of agriculturists) and the

starting of small construction schemes to give employment in the affected villages. Funds are also placed at the disposal of the local authorities for relief operations.

Almost every year, some parts of the district are declared famine areas. In 1961 these areas were as follows:—

Tehsil						Number of villages
Barmer	..	..	..	..	..	13
Shiv	..	..	..	..	..	53
Siwana	..	..	..	..	..	19
Chohtan	..	..	..	..	..	9
Pachpadra	..	..	..	..	..	91

CHAPTER V

INDUSTRIES

TRADITIONAL INDUSTRIES

The most important traditional industries are cloth printing and dyeing and salt manufacture. Lesser industries are smithy, carpentry, shoe-making, pottery, *jat patti* making and other village crafts, which date back to the time, when the village economy was largely self-sufficient.

The impact of modern civilization has, in the rural areas, not been strong enough to disturb seriously the hereditary professions. The district is still industrially backward because of the lack of materials needed for modern industry, shortage of power and poor communications.

POWER

As there are no large rivers, either in the district or in its vicinity, there is no question of hydroelectric power being available. In fact, up to 1954, there was no electricity at all in the district. In that year, a small thermal station of 22 kw. was installed under the control of the Municipal Board, Barmer to provide street lighting and to operate the water works. Later in 1959, a bigger power house of 200 kw. was opened. As a result, it has been possible to provide some electric connections within the town. At present, there are only 451 permanent connections, including 6 power connections to industries.

A small power house was also opened in Balotra in December, 1958. There are 334 connections (332 domestic and 2 power). The total installed capacity of the power house is 95 kw.

There is a proposal to construct a new thermal station at Balotra at a cost of about Rs. 4 lakhs with a capacity of 1,000 kw. The establishment of such a plant would enable a start to be made in industrialization. The two existing power houses are of such low capacity that power is supplied to small industries only in exceptional

cases. The only industrial units obtaining electric supply at present are some flour mills, the water works at Barmer and Balotra and an engineering concern at Balotra.

MINING

Near Barmer city and northwards, there are exposures of Eocene geological formations, characteristic of which are such non-metallic mineral deposits as sandstone, clays, bentonite, fuller's earth, gypsum and selenite. Besides these deposits, there is the well-known Pachpadra salt lake about 15 miles north-west of Balotra. The district is deficient in metallic minerals.

Salt.—The salt industry at Pachpadra supports the workers of about 25 villages situated in its vicinity. The industry, which was leased by the Jodhpur Darbar to the Government of India in 1879 for an annual sum of Rs. 1.7 lakhs and transferred to the Government of Rajasthan on April 1, 1960 has had a chequered history. Since earliest times, it has been used as a source of salt, but systematic exploitation is said to have begun only about 450 years ago. Under British control, production was strictly regulated and at times ceased altogether, only to be again called upon to supplement supplies from other sources, when market conditions so required.

Major K. D. Erskine, quoting F. Ashton's article "The Salt Industry of Rajputana" (in the Journal of Indian Art and Industry, Vol IX, January, 1901) writes in the Rajputana Gazetteer (1909):

"The salt lake has an area of about ten square miles and, unlike that at Sambhar, is not dependent on rainfall as the brine springs are perennial. According to local tradition, the valley was in former times a marsh, in which salt was deposited during the dry and hot months, and the wild aboriginal tribes collected the commodity for their own consumption and for sale to the inhabitants of the adjoining desert. Some 400 years ago, a Jat called Pancha occupied a small hamlet, which was called after him Panchpadra (subsequently corrupted to Pachbhadra).

A man of the Kharwal caste, named Jhanja, visited the place and, noticing the formation of the salt in the bed of the marsh and recognizing the value of his discovery, settled here and commenced systematic work. He was soon joined by some of his kinsmen, and they at first proceeded on the old lines of collecting such salt as formed spontaneously, but eventually they discovered that brine

springs existed not far from the surface and accordingly dug a shallow pit so as to reach their level. A better kind of salt being thus obtained, they abandoned the old methods and, later on, ascertained that the best crystals formed on the thorny branches of desert shrubs, which were blown by accident into the pits. Experiments were made, and it was found that the shrub known as *moralī* (*Lycium europaeum*) was most suitable, because its twigs did not decay in the brine and its long thorns facilitated the formation of large crystals.

"These alleged discoveries of Jhanja and his brethren form the basis of the methods of manufacture followed at the present time; indeed, no improvement has been found practicable. Pits of an average length of 230 ft. with their banks sloped to an angle of about 45 degrees, are dug in the bed of the source to a depth of 11 ft. until the subterranean springs of brine have been tapped, and these become filled to a depth of about three feet with strong brine, varying in density from 20 degrees Beaume to saturation point. Crystallization is promoted by throwing branches of *moralī* into the pits as soon as the formation of an overset of salt indicates that precipitation has commenced. During the great heat of April, May and June the evaporation of the brine is very rapid, and as this proceeds and salt is precipitated, more brine flows in until the pit is filled with salt to a depth of about 3 ft., which takes place in two years. The salt is then ready for removal and, having been cut out in sections, the crystals are shaken off the thorny branches and stored in oblong heaps on the bank. The out-turn from a pit averages 370 tons every second year, and crop after crop is thus obtained. The salt is one of the best of Upper India and is by many preferred to the Sambhar variety; it is white, clean and of good crystal, and contains from 97 to 98 per cent of chloride of sodium.

"As at Sambhar, so also here, the source is under the protection of the goddess Sakambari, who is said to have appeared before Jhanja and ordered him to dig out images of herself and her sister from the centre of the lake and build a temple in their honour. This command he faithfully obeyed, but the shrine, as it now stands, has been considerably enlarged since his time; the image of Sakambari has an inscription dated 1514 A.D."

Erskine adds: "The annual average out-turn during the last 10 years has been 28,130 tons, of which between 45 and 46 per cent is exported to the United Provinces, 27 per cent is consumed in Rajputana and the rest finds its way to Central India and

the Central Provinces. In former times, the whole of the carrying trade was in the hands of the Banjaras but, with the extension of the railway to Balotra and the construction of the branch line to the works, very few of these wanderers visit the place, and practically all the salt is removed by rail."

The salt tract consists of a long oval depression about seven to eight miles long and four to five miles wide and has a very porous soil. The space occupied by the salt works is about six miles long and has an average width of two miles.

There are at present 1,074 pits in the tract, of which 428 are working. The old pits are not of uniform size, varying from 100×50 ft. to 800×100 ft. and are also not systematically laid. The new pit size, however, has been standardized at 400×100 ft. Twenty pits of this size have been constructed since 1947. For the sake of convenience, the area has been divided into two sectors, viz., the Eastern sector and the Western sector. Details are given at the end of this chapter.

Extraction of salt generally begins in October and continues up to the end of June. Peak production is during the hot months of April, May and June. Crops of salt are generally obtained from the same pit at intervals of about 18 months. The salt crust is broken up with iron-tipped poles, raked to the side and spread out for a day or so to dry on a ledge just above the brine level. It is then carried up the bank in baskets and collected in heaps.

The Kharwals still retain hereditary ownership and manufacture rights. Generally, a pit is shared by several persons but an individual may have shares in many pits at the same time. The Salt Department maintains a register for each pit, wherein is entered its history, ownership, etc.

The investment on a standard size pit is Rs. 10,000/. In a year of normal production (12 lakh maunds) about 1,000 persons are employed during the peak season. An adult male receives a daily wage of Rs. 1.50 to Rs. 1.75 and women and boys Rs. 1.00 to Rs. 1.25. Work is done on a single-shift basis, usually from 8 a.m. to 5 p.m., with seasonal variations. There is an hour's recess at mid-day.

Bentonite.—Extensive deposits are found in Shiv tehsil and there are also some in Barmer tehsil. The main workings are at the following places: Harwecha, Gival, Akli, Thumbli, Gunga and Shiv (all

in Shiv tehsil) and at Bisala and Sonri in Barmer tehsil. About 3,000 tons of bentonite are extracted annually at present, but production is likely to increase as there is a big demand for this mineral. According to "Mineral Production in India", 1958 (p. 183) issued by the Ministry of Steel, Mines and Fuel, Government of India, available reserves of bentonite in Barmer are about 11 million tons.

Selenite.—The workings at Thob village in tehsil Pachpadra yield about 400 tons per year.

Gypsum.—Traces have been found at various places but the main deposits are at Kavas and Utarlai, which are on the railway close to Barmer. The working of this valuable fertilizer mineral has been directly taken up by the Sindri Fertilizer Factory. According to J. Coggin Brown and A. K. Dey in "India's Mineral Wealth", the gypsum reserves at Kavas are of the order of 2,061,000 tons and those at Utarlai 7,499,000 tons. The Kavas deposits were the first to be exploited in this area and as they are much smaller than those at Utarlai they are likely to be exhausted much earlier. The present annual production is in the neighbourhood of 2 lakh tons.

Fuller's Earth.—The largest deposits are at the village of Kapurdi, 14 miles north of Barmer town. There are several smaller deposits in Barmer tehsil, especially at Rohli. Production at present is nearly 4,000 tons.

Others.—Among the lesser mineral deposits are those of glass sand and clay at Botiya (Barmer tehsil); clays are also found at Barmer itself. Some sand-stone is quarried at Barmer and Jasai (Barmer tehsil) but the output is negligible and roofing materials have to be imported into the district.

Mention must also be made of the prospecting for lignite undertaken by the Department of Mines and Geology near Unror in Shiv tehsil. Due to scarcity of water, the drilling operations were suspended, but they are again being resumed and it is expected that considerable deposits will be found as the geological conditions are favourable.

Apart from gypsum and, to a lesser extent, bentonite and selenite, the mineral workings are small. As already stated, gypsum is sent out in large quantities by rail right across the country to the Sindri Factory. A bentonite grinding mill has been established at Barmer, and a mill at Jodhpur manufactures plaster of Paris from selenite quarried in this district.

LARGE-SCALE INDUSTRY

Because of the lack of power facilities in the district, there are no industries which fall into this class.

SMALL-SCALE INDUSTRY

There are a few small industries in the district deriving power largely from oil engines. Most of them are flour mills, but there are also aerated water and ice cream factories, oil mills and others.

There are in all 47 flour mills at various places in the district, but most are concentrated in the areas covered by the Barmer and Pachpadra panchayat samities, as will be seen from the following table:

Place.	No. of mills.
Barmer	15
Shiv	2
Chohtan	1
Gura Mallani	1
Baitu	1
Sindhari	—
Balotra	17
Siwana	10
Total	47

Two of the flour mills at Barmer also operate cotton carding machines with the grinder.

There are seven ice cream and aerated water manufacturing units, three of these being at Balotra and four at Barmer. These two towns also have the only oil mills to be seen in the entire district (three each). There are two confectionery manufacturing units, one at Barmer and the other at Balotra, the latter having a production capacity of 200 maunds per month as compared with the 40 maunds per month capacity of the Barmer plant.

Barmer has two small printing presses and Balotra one.

As already stated, a bentonite grinding factory has been set up at Barmer. Bentonite is a valuable material used in the clarification of food products and water, foundry moulding, insulation against water seepage, increasing the plasticity of ceramic clays, etc. The factory, established in February, 1958 by a private concern after an investment of nearly Rs. 2 lakhs, has a designed capacity of 15 tons of bentonite powder per day. Present production is only 5 tons per day as double-shift working has not yet been introduced. The average daily wage is Rs. 1.75.

The bentonite powder, which sells at Rs. 100 per ton, is exported mainly to cities like Bombay and Calcutta but some finds its way to foreign markets including Pakistan and Burma.

Like the other small industrial units, the bentonite factory makes use of oil engines as a source of power. The factory employs only 15 workers.

COTTAGE INDUSTRIES

Dyeing and Printing

This is the most important cottage industry. In Balotra, before Partition, it was carried on by a Muslim community known as *Chhipas*; their counterparts in Barmer town were *Khatri* Hindus. *Khatri* dyers were also to be found in Samdari, Ramsar, Bisala, Sindhari, Gunga, Shiv, Chohtan and Dhorimana villages.

After partition, of 125 *Chhipa* families in Balotra, about 80 migrated to Pakistan, but this loss was more than counterbalanced by the arrival of more than 200 *Khatri* families from Sind. The new arrivals brought a technique of printing on both sides of the cloth whereas, before 1947, local prints had been confined to one side.

As regards dyeing, the main centre is Balotra, where the chemical composition of the water is particularly favourable. The colours used are mainly red and blue, the former coming out in a vivid shade. For the purpose of *bandhami* (tie-and-dye) cloth manufacture, the services of women in the villages are utilized to bind the cloth in the required manner before dyeing.

In the sphere of printing, Balotra and Barmer are equally important, though all the big units are at the former place. The printing industry suffered a temporary set-back at the time of Partition, when the traditional and sizable market of Sind was lost. Alternative markets have now been obtained and attempts are being made to re-open the Sind market so that the industry is recovering.

The production of cotton in the district being insufficient for local needs, many dyers and printers make use of mill-made cloth in addition to the output of the local hand-loom. The final product varies in price according to the texture of the cloth, but generally the coarser varieties are favoured as most of the consumers in this district and elsewhere belong to the poorer classes. This is one reason why the indigenous industry has been able to hold its own in competition with mill products. Another reason, stated by Erskine and still holding good, is that "the dyers and printers (of this area) still thrive in consequence of their ability to gratify the love of colour, or rather the well designed combination of colours so popular among either sex in Rajputana".

There are three sizable dyeing and printing units operating in the district, all situated at Balotra. One, which has three work-shops, has in fact come into being as a result of the amalgamation of three small units on April 1, 1958. A total number of 47 persons were employed in 1960. All work is done by hand and the cloth used is either mill-made or hand-made. Mill cloth is imported from Indore, Bombay, Delhi, Bhiwani, Kanpur, etc., while the hand-loom cloth comes mainly from Bhojpura. The final product has a wide market in Rajasthan, Delhi, Punjab, Madhya Pradesh and Bombay and attempts are being made to find markets in West Asia.

The second unit, established in 1951-52, finds a ready sale for its cloth within the district and in the big towns of Rajasthan. The third is only a dyeing works. It uses mill-made cloth imported mainly from Indore, Bombay, Bhilwara and Beawar. The product is sold mainly within the district itself but also finds buyers in the adjacent districts of Jalore and Jodhpur.

Apart from these, the units are mainly family concerns. As in the past they are concentrated at Balotra and Barmer.

The table below shows the extent of the industry at these two places:—

				Barmer	Balotra
Units	..	..	..	213	71
Workers	..	..	..	217	332
Dependents	..	..	..	598	352
Monthly production	..	..	..	2,54,500 yds.	3,85,000 yds.
Monthly sale	..	..	..	Rs. 1,60,000	Rs. 3,00,000

There are five calico printers' co-operative societies in the district with a total membership of 125.

Weaving

This is an important branch of cottage industry carried out generally on a family basis. The materials used are coarse cotton locally produced, goat hair and the fleece of sheep.

The making of goat hair *pattis* was once a thriving industry with markets as far off as Afghanistan. In recent years, however, the demand has fallen off, though exports to Gujarat and Maharashtra are still fairly considerable. *Jat Patti* making, as it is locally known, is mainly localized at Jasol, in the Pachpadra panchayat samiti area and Balotra town but some households in the Gura Mallani and Chohtan panchayat samiti areas also are engaged in this work.

Gadra Road is the main centre for blanket weaving, and a co-operative has been formed there. Blankets are also manufactured on a small scale in villages such as Bar Singdesar, Lilma and Chohtan; they fetch about Rs. 20/- each. About 2,000 blankets are sold at the Tilwara fair every year. Normally, a single worker can weave a blanket in about three days.

Wool weaving is largely concentrated in the Barmer and Shiv areas. The wool is coarse and the market mainly local, though some woollen cloth finds its way to Gujarat and neighbouring districts of Rajasthan. The better quality costs about Rs. 8/- per yard.

Cotton weavers are the most numerous in the weaving community, numbering 1,540 at the time of the 1951 Census. Pit-shuttle looms are usually used by the weavers, fly-shuttle looms being rare. The weaving is usually done by men, the women carrying out subsidiary processes like sorting, winding, sizing and finishing. As only coarse cloth is produced, the market is mainly local and even then the supply is insufficient for the needs of the dyers and printers, who have to buy considerable quantities of mill-made cloth.

The weavers, being poor, are often forced to sell at unremunerative rates in order to obtain money for buying fresh raw material. The co-operative movement can be of considerable help in this regard. At the end of March 1961, there was a total of 40 weavers' co-operatives in the district with a combined membership of 1,123. Twenty-five of these were cotton weavers' societies.

Bangle Industry

This industry is largely confined to the towns of Barmer and Balotra, the number of actual workers being eight at Barmer and

twelve at Balotra. There is also one bangle-producing household at Siwana and one at Samdari. The value of the entire annual production is said to be in the neighbourhood of Rs. 1,30,000.

Apart from the industry using local materials, there are six units engaged in the production of bangles made of ivory, plastic and lac, using imported materials. These units, however, are considerably handicapped by the shortage of raw material.

Bidis

The *bidi* industry received an impetus at the time of Partition due to the influx of a large number of workers from Pakistan. It is mainly confined to Barmer town. The industry is largely controlled by business men, who finance independent workers on conditions extremely favourable to themselves. Some business men have set up small *bidi* manufacturing units employing workers on an output basis. There are 14 such *bidi* units in Barmer town, employing about 100 persons. Besides, there is the contract system under which the materials are supplied to persons who work in their own homes and are paid at the flat rate of Re. 1/- per 1,000 *bidis* manufactured.

The value of the total monthly production is of the order of Rs. 50,000/-; most of the *bidis* are consumed within the district itself.

Tanning

Because of the large cattle population of the district, tanning is a fairly important cottage industry. The main centres are Shiv, Balotra, Siwana and Gura Mallani, where the necessary water supplies are available. The industry is carried on mainly on a family basis; the tanners are usually farmers, who take up this work in the slack season. The annual production is of the value of about Rs. 3 lakhs. The market is mostly local, though small quantities of hides are exported to Jaipur, Nasirabad, Agra and Kanpur. The number of persons engaged in this profession is as follows:—

				Houses	Workers
Barmer	..	..	..	148	115
Shiv	..	..	..	148	159
Balotra	..	..	..	175	371
Siwana	..	..	..	111	225
Gura Mallani	..	..	..	90	117
TOTAL				672	987

Shoes

The only large shoe-making centre is Barmer, where 181 workers in 102 houses are engaged in this profession. However, there are shoe-makers in all the towns and big villages, catering to local needs. The value of the total production is said to be in the region of Rs. 24,000/- per month.

The most common type of footwear produced is the ordinary Rajasthani *jootie*, for which there is considerable demand in the villages. Fancy, embroidered shoes are produced by a few expert craftsmen.

Pottery

The pottery of this area is largely utility manufacture and consists mainly of water pots of various designs. Almost every big village has its own *kumhar*. The general scarcity of water is the main reason why the making of ornamental pottery is negligible.

In Balotra, there are 83 houses with 133 workers making a total of 29,000 pots annually, and in Siwana 66 houses with 120 workers producing about 12,000 pots. In no other places is production on a sizable scale.

Carpentry

In all the towns and big villages there are carpenters, who make rough furniture and agricultural implements using indigenous tools. The main centres are Barmer, Baitu, Balotra and Siwana. The value of the total annual production is in the neighbourhood of Rs. 1 lakh. The 1951 Census records the number of carpenters, turners and joiners as 388.

Ghee

Because of the enormous number of cattle in the district, *ghee*-making has always been an important cottage industry. Usually, *ghee* is made from a mixture of cow's, goat's and camel's milk; *ghee* from cow's milk alone fetches a higher price. Barmer *ghee* was at one time famous throughout Rajasthan, but since the last world war there has been a tendency to adulteration, which has spoiled the good name of the local product.

Smithy

Every town and several big villages have one or two *Lohar* families and there are also itinerant smiths, who move from place to

place repairing utensils and agricultural implements. The 1951 Census recorded 298 persons as blacksmiths and other workers in iron.

In the same year, there were 258 gold and silversmiths. There is a heavy demand for gold, silver and other fancy articles of wear during the marriage seasons, but at other times of the year trade is slack.

Fashions too, have undergone considerable changes. In the 19th century, artistic and costly jewellery gradually went out of fashion, though the demand for heavy gold articles persisted for a time. In recent decades, the high price of gold has affected the demand for such articles, though silver ornaments are as popular as ever, especially with village women.

INDUSTRIAL POTENTIAL

There are several traditional industries, which have long been famous but little attention has been paid to the improvement of production processes with the result that in some cases markets have been lost. Thus, the *Jat patti* industry has lost its market in Afghanistan because competitors were technologically more advanced. The dyeing and printing industry, too, is in need of calendering plants if it is to hold its own.

The district is rich in clay deposits and there is scope for the development of the pottery industry in areas, where sufficient water is available. The bentonite and selenite deposits also are large and can be more fully exploited than at present. There is also scope for a wool carding mill. Some parties have plans to start cable manufacture as soon as power is available.

A local business firm has submitted proposals for the establishment of a factory at Pachpadra to manufacture salt bi-products in collaboration with a Hungarian firm. The same firm has established a plaster of Paris factory at Jodhpur, where power is available, using raw material from this district.

The absence of power is the greatest single drawback to the drawing up of industrial plans for the area. With the establishment of new thermal power station at Balotra some improvement is expected, but it is unlikely that large-scale industry will make an appearance for some time to come.

LABOUR WELFARE

As the district has no big mills or factories, the various labour laws have no application except in some mines. Thus there is virtually no control as regards pay, working conditions, etc. Moreover, as the industrial units are small, even enlightened employers cannot afford to provide adequate wages and welfare facilities.

In the salt industry, which is the largest in the district, some attempt at labour welfare has been made through the building of shelters for use during rest periods. There is also a dispensary which at one time had a fully qualified doctor but is now looked after by a compounder, aided by a nurse and ward-boy.

Drinking water for workers at the salt pits is brought by rail from Balotra and Samdari. In 1959-60, expenditure on water supply was about Rs. 24,400.

LABOUR ORGANIZATIONS

There are no registered trade unions in the district. Prior to 1958, there were two registered unions, but their registrations were cancelled as they were not functioning properly. There are, however, a number of unregistered trade unions, mainly in the salt, *bidi* and mining industries. As labour is not organised, employers have not felt the need to set up their own organizations either.

STATE ASSISTANCE

The Government, through its various agencies, has been giving assistance to the tanning, dyeing and printing, shoe-making, handloom, blacksmithy and carpentry industries.

Loans up to Rs. 5,000/- are granted by the District Loan Committee. The Director of Industries sanctions advances up to a maximum of Rs. 10,000/-, while for sums exceeding Rs. 10,000/- the Rajasthan Loan Committee is the sanctioning authority.

The rates of interest charged on these loans are $2\frac{1}{2}$ per cent per annum for co-operatives and 3 per cent for individuals.

The following table shows the extent of loans advanced by

the three authorities named above in recent years:

	(Rupees)				
	1956-57	1957-58	1958-59	1959-60	1960-61
Rajasthan Loan Committee ..	16,000	9,500	10,000	10,000	5,000
Director of Industries ..	5,000	5,100	11,500	9,000	5,000
District Loan Committee ..	nil	nil	20,000	20,000	20,000
TOTAL ..	21,000	14,600	41,500	39,000	30,000

Departmental Set-up

In the time of Jodhpur State, there was a Department of Mines and Industries, which gave some encouragement to local industries. After the formation of Rajasthan, more positive aid was forthcoming and loans were advanced by the Assistant Director of Industries, stationed at Jodhpur, who also collected industrial statistics.

In May, 1956 a District Industries Office was set up. The District Industries Officer also assists the development of industries in Jaisalmer district. His immediate controlling authority is the Assistant Director, Industries at Jodhpur.

Industries Extension Officers have been posted in the panchayat samiti areas to assist these local bodies in drawing up industrial development plans and to give technical advice. Such officers are at present posted in the Pachpadra (headquarters at Balotra), Siwana, Shiv and Gura Mallani panchayat samiti areas.

APPENDIX

SALT PRODUCTION

(in thousand maunds)

Year	Production	Issue	Closing Balance
1953	918	870	215
1954	1151	1044	370
1955	1205	850	725
1956	345	752	318
1957	1102	718	702
1958	1529	768	1463
1959	812	704	1571
1960	589	1132	1128

WORKING OF SALT PITS

Sections	Total No. of pits	No. of working pits	No. of abandoned pits	Average annual production	Potential capacity	Quality of salt (Gen. description i.e. grain, colour)	Analysis (NaCl. contents. only)
Western Sector. Hiragarh	236	221	115	6,00,000 Maunds	9,00,000	Large grain salt, white in colour.	96 to 99 %
Bara Samra	382	31	351	Maunds	Maunds	Large or medium grain blue in colour.	95 to 98 %
Eastern Sector. Pooni	132	100	31	4,00,000 Maunds	6,00,000	Fair or medium grain, white in colour.	96 to 99 %
Chota Samra	225	76	149	Maunds	Maunds	Large or medium grain, white or blue in colour	96 to 99 %

Consumption :

The sections have a potential capacity of 15,00,000 mds. provided all the working pits are properly maintained and renovated in time. Production also depends on the amount of rainfall, which affects sub-soil percolation.

Large-grained white coloured salt is in greater demand in U.P., Rajasthan and Punjab. Rajasthan and Punjab also consume small grain salt, white in colour. White fine grain salt is consumed in Bihar.

Clearance (in thousand maunds) to different States

State	1955	1956	1957	1958	1959	1960
Punjab	143	68	114	44	14	58
Rajasthan	550	411	368	493	430	400
Delhi	..	..	..	..	1	..
Madhya Pradesh	..	..	..	..	14	12
Uttar Pradesh	..	..	..	..	77	484
Bihar	..	..	..	..	..	50

CHAPTER VI

BANKING TRADE AND COMMERCE
BANKING AND FINANCE
HISTORICAL ASPECT

The territory, formerly known as Marwar, has long been renowned for its business class of Mahajans and Mallani was one of the districts, in which this class was numerically, very strong. Most of the Mahajans of this area belonged to the Oswal (very largely Jain), Agrawal and Maheshwari sections of the community.

Prior to the 19th century, the monopoly of supplying money to the cultivators and others was in the hands of these professional money-lenders, but after the settlement of 1894-6 the Darbar began making advances for agricultural improvement at lower rates of interest.

Major Erskine in the Gazetteer of 1909 records that the money-lenders at that time were very grasping. On cash loans they charged rates of interest varying from 12 to 24 per cent and in the case of grain advanced either for seed or subsistence the rates would be anything between 25 and 100 per cent. However, as the power of permanent alienation of land was neither enjoyed by the cultivator nor given to the civil courts, the most that could be done in a case of default was for a decree-holder to seize the standing crop after leaving something for the maintenance of the cultivator. Thus the borrowing power of the cultivator, and hence the extent of his indebtedness, was restricted.

PRESENT CREDIT FACILITIES

Rural Indebtedness:—The Rural Credit Survey conducted by the Reserve Bank of India in 1951 shows that the problem of indebtedness is still a serious one. According to the Survey, more than 57 per cent of the rural families are in debt, the percentage for cultivators being 57.6 and for non-cultivators 52.6. The following

table illustrates the extent of indebtedness among groups with holdings of various sizes:—

Average size of holding (acres)	Percentage of indebted families.	Average burden of debt (Rs.)
198.8	58.8	2,202
112.6	60.6	1,434
35.1	68.7	741
18.6	46.8	494
All cultivators	57.6	900
Non-cultivators	52.6	408
All families	57.2	865

Those with medium size (about 35-acre) holdings provide the largest percentage of borrowers because they are not as well off as the bigger land-holders but are at the time able to offer sufficient security to satisfy the money-lenders. The small cultivators are necessarily unable to offer adequate security and thus, although their needs are greater, the extent of their borrowing is curtailed. A feature of the findings is that the average burden of debt and also the percentage of indebted families is much lower in the case of non-cultivators as compared with the farming classes.

Urban Indebtedness:—No survey of urban indebtedness has ever been undertaken. The townsmen, living as they do largely by trade and small industry, are for the most part rather poor and in need of money to run their businesses. They also incur non-productive expenditure on weddings, festivals, etc. Their business needs are met to some extent by the commercial banks and government agencies, but in incurring non-productive expenditure they have to resort to the money-lenders, whose charges remain as high as before.

Reasons for Borrowing:—A few words may be added here on the reasons for which loans are sought. The Rural Credit Survey showed that as much as 69.7 per cent of borrowings in the rural areas are for private family expenditure on such items as housing, purchase of goods, death and marriage ceremonies, festivals, medical and litigation expenses. Only 26.1 per cent of borrowings are for capital expenditure in agriculture such as the digging and repair of wells, purchase of livestock and implements, etc. Current farm expenditure claims 3.4 per cent of borrowings, the main items being manure, fodder, seed, storage charges and wages of farm workers, and the remaining 0.8 per cent is for miscellaneous items.

Cultivators with medium size holdings, who are the heaviest borrowers, spend as much as 80.8 per cent of their borrowings on family expenditure, as compared with 60.9 per cent in the case of small cultivators, 65.5 per cent for large-medium cultivators and 64.0 per cent in the case of big cultivators. The biggest cultivators, incidentally, spend the highest percentage of borrowing (35.4) on capital expenditure, the corresponding percentages for large-medium the medium and small cultivators being 28.8, 18.3 and 34.8 respectively.

This analysis is important because it shows the extent, to which money is borrowed, for non-productive items. As a result, unless the agriculturists as a whole learn to curtail wasteful expenditure, the money-lenders will continue to be a power in the villages in spite of the growth of the co-operative movement and assistance from official agencies.

Co-operative Movement:—The Rural Credit Survey estimated that about 68.5 per cent of the credit requirements of the village people are supplied by money-lenders, who thus are still the most important source of finance in the district. As there is little industrial potential to attract joint stock banks to the area, the only means of combating influence of the Mahajans and forcing them to charge lower rates of interest is the co-operative movement.

In this district the co-operative movement is of very recent origin, the first societies being set up only in 1948 under the Marwar Co-operative Societies Act of 1943. After the formation of Rajasthan, a new Co-operative Societies Act was brought into force with effect from April 1, 1953.

The progress of the movement during the initial stages was rather slow and in June, 1955 there were only 29 societies with a total membership of 736. Most of these were rural societies, though there were a few societies in industries such as weaving and cloth printing. The following table shows the position in 1955:—

Type of Societies	No.	Membership
Agricultural Credit	2	28
Multipurpose	8	221
Non-agricultural Credit	2	33
Weavers	4	125
Calico Printers	2	94
Kangri Utpadak	1	13
Purchase and Sale	10	223
TOTAL	29	736

Since the progress has been more rapid, especially after the setting up of an office of Assistant Registrar of Co-operatives in 1957. At the end of 1960-61 the number of co-operative societies had risen to 426, with a total membership of 27,511.

The details are as follows:—

1. Credit	No.	Membership
(i) Central Bank	1	380
(ii) Agricultural credit societies including M.P. and service co-operatives	289	21,208
(iii) Primary Land Mortgage Bank	1	29
(iv) Non-agricultural credit societies	3	144
(v) Large size credit societies	3	1,176
	277	22,931
2. Non-credit.		
(i) Non-credit institutions:		
(a) Co-operative Institute	1	153
(ii) Primary Agricultural Non-credit :		
(a) Co-operative farming	21	924
(b) Primary Marketing	3	100
(iii) Primary Non-agricultural Non-credit :		
(a) Weavers	40	1,123
(b) Calico printers	6	138
(c) Tel ghani	4	64
(d) Leather workers	22	415
(e) Blacksmiths and carpenters	4	74
(f) Village potters	8	98
(g) Consumer stores	12	1,356
(h) Housing	4	114
(i) Transport	Nil	Nil
(j) Sheep Breeding	..	..
(k) Bidi Utpadak	..	..
(l) Basket-makers	..	..
(m) Salt producer	Nil	Nil
(n) Kangsi utpadak	..	..
(o) Jat Utpadak	..	..
(p) Un soot Utpadak	..	..
(q) Labour contract	4	67
(r) Churi Utpadak	Nil	Nil
Others	20	494
Total of item No. 2	149	4,580
Grand Total	426	27,511

These figures do not include 20 societies with a total membership of 508, which were under liquidation proceedings.

The growth of the movement has been particularly promising in the sphere of agricultural credit, with which are included multi-purpose societies. In industry, however, there is much room for improvement and activities such as transport, sheep breeding, basket-making, *bidi* manufacture, etc., are as yet out of the co-operative fold.

An apex bank branch, set up in the district in July, 1958 was a year later converted into the Barmer Central Co-operative Bank. By the end of December, 1960 this bank had advanced loans totalling about Rs. 19 lakhs. It charges 5½ per cent on loans to agricultural societies and 7½ per cent on loans to other types of co-operatives. The maximum credit allowed to societies with limited liability is eight times their paid-up share capital and in the case of unlimited liability societies one-tenth of total assets.

The societies also obtain aid from various other sources, such as the Industries Department, the Khadi and Village Industries Board, development departments and others. At the end of March 1961, loans outstanding totalled Rs. 13,30,397, of which Rs. 11,01,130 was due to the Central Co-operative Bank, Rs. 71,885 to the Industries Department, Rs. 57,119 to the Khadi and Village Industries Board, Rs. 98,863 to the development departments and Rs. 1,400 to others.

On the whole, the co-operative movement has made commendable progress in a comparatively short period. On its future performance will depend the degree to which the financial power of the money-lending class can be reduced in the matter of loans for production or business. Of course, the societies cannot be expected to provide funds for non-productive purposes, and the money-lenders will continue to finance such expenditure on their own terms.

Scheduled Banks

As stated earlier, the industrial potential of the district being small, there is not sufficient business to attract the attention of large established banks. The State Bank of Bikaner, now a subsidiary of the State Bank of India, opened a branch at Balotra in 1947 and another branch in Barmer in 1949. These two units are sufficient to meet the modest needs of the district at present.

Insurance

The general apathy towards life insurance is reflected by the fact that, prior to 1957, not a single company had an agent per-

manently stationed in the district. In that year, the Life Insurance Corporation of India opened a Field Office at Barmer (later raised to the status of Development Office) to cover the districts of Barmer and Jaisalmer. The office at present has six Field Officers and 41 agents. The year-wise business figures for Barmer district are as follows:—

1957	Rs. 7,50,000
1958	Rs. 17,25,000
1959	Rs. 21,23,000
1960	Rs. 35,00,000

The number of policy-holders in 1960 was only about 3 per cent of the population but the statement above shows that steady progress is being maintained. The general poverty of the people, and the consequent inability of most heads of families to pay the premiums, is a retarding factor.

There is a separate State Insurance Scheme for Rajasthan Government Servants. The scheme was introduced in 1954 and up to the end of 1960 a total of 3,514 employees had been insured.

Apart from life insurance, there are agents of two companies—the Premier General Insurance Company Limited, Madras and the Motor Owners' Mutual Insurance Company Limited, Belgaum—engaged in motor insurance. Neither of these companies has, however, opened a branch, the district falling within the Jodhpur branch of the former company and the Ajmer branch of the latter. As there are less than 300 motor vehicles in the district, business is small.

CURRENCY AND COINAGE

No ancient coins have been unearthed in this area and it is not known whether the early chiefs of Mallani ever struck coins in their own name. The balance of probability is against this, as Mallani was at no time a seat of Empire.

The earliest coins, of which there is tangible evidence, are those of the Mughal Emperors, which circulated freely in Marwar up to the middle of the 18th century and were, eventually, displaced by the Bijaya Shahi coins, which Maharaja Bijaya Singh started minting in 1761. Maharaja Amar Singh had issued his Amar Shahi coins at Nagaur in the 17th century and Maharaja Ajit Singh had

also struck coins round about 1720. It is probable that the latter coins at any rate circulated along with the Mughal coins in this area.

Erskine's Gazetteer also refers to the Akhaya Shahi coins of Jaisalmer as being current in the western districts of Marwar.

The Bijaya Shahi coinage consisted of gold, silver and copper pieces, round in shape and bearing inscriptions in the Arabic and Devnagri script. There were, eventually, seven mints issuing these coins, none, however, in the parganas now forming Barmer District. Gold coins were minted only at Jodhpur, the coins being the mohar, half mohar and quarter mohar, and they were first struck in 1781. The silver coins were the rupee, eight-anna and four-anna pieces and were first struck in 1761. The copper coin was the paise or pice, the original Bijaya Shahi pice being called "Dhabbu Shahi" on account of its great weight (310 grains). In commercial transactions the lowest unit of exchange was the shell or Kori, 80 of which equalled one Dhabbu pice. Three and half of these pice equalled one anna of the Marwar coinage.

British Indian coinage was introduced in Marwar during the time of Maharaja Man Singh and circulated alongside the local coins till November 1, 1900, when the princely state mints were closed.

A fuller account of the Marwar coinage is given in the Jodhpur district Gazetteer.

TRADE AND COMMERCE

Course of Trade

Major Walter, in the Mallani Gazetteer of 1879, states that the main exports of the area were horse and camel gear to Umarkot, ghee to Jodhpur, Gujarat and Ajmer and gum to Bhiwani. Salt was exported by the Banjara community to Malwa and elsewhere. He also mentions the buying by traders of bullocks, sheep, goats and camels at the Tilwara fair. In good seasons grain was exported to Jaisalmer, the north-western parts of the Marwar and occasionally to Kutch. Among imports, Major Walter refers to opium from Kota, Jhalrapatan and Pali, English cotton from Karachi and Bombay (from Karachi it came via Hyderabad and Umarkot and from Bombay via Ahmedabad, Deesa and Gura Mallani) and ivory from Mandwi by way of Gujarat and sometimes via Sind.

The improvement of communications has increased the quantum of trade. Several traditional markets for the products of

the district have, however, been lost following the formation of Pakistan and the finding of new markets within the borders of India, particularly for the cottage industry products, has proved difficult in the face of keen competition.

Exports

The most important exports of the district are salt, dyed and printed cloth, animals and gypsum and other minerals. Salt and cloth find their way to ready markets all over India, especially in Delhi, Punjab, Madhya Pradesh, Maharashtra, Uttar Pradesh and even Bengal, Assam and Bihar as well as the cities of Rajasthan. Efforts are being made to export some varieties to West Asian countries.

The fair at Tilwara continues to be a big draw for buyers of animals who come mainly from Gujerat, Punjab and other parts of Rajasthan.

Among mineral products, gypsum is exported to the Sindri Fertilizer Factory and bentonite (crushed and uncrushed) is exported to industrial centres in Maharashtra, Gujerat, Bengal, etc. Selenite is exported to Jodhpur, where it is manufactured into plaster of Paris. Fuller's earth goes to Delhi, U.P., Punjab, Gujerat and other parts of Rajasthan.

The trade in grain fluctuates according to the strength of the monsoon. In years of good rainfall, which are few and far between, there may actually be an export of *bajra* to Gujerat and Maharashtra.

Other exports of the district are bones to Bhagat-ki-Kothi in Jodhpur, goat hair to Delhi, and wool to Beawar, Bikaner and Panipat. Even though *ghee* continues to be exported to Jodhpur and other neighbouring districts, its importance as an item of trade is declining due to adulteration by some producers.

Imports

Even in normal years, the district imports large quantities of fodder and foodgrains. Wheat is imported mainly from the Punjab and Ganganagar District and *jowar* from Sawai Madhopur. Gur and sugar come from U. P. Building stone is imported mainly from Jodhpur and cement from Dwarka in Gujerat as well as Sawai Madhopur and Lakheri (Bundi district). Petroleum products are imported from the refineries in Maharashtra, vegetable oils mainly from Gujerat and Maharashtra, mill cloth from Madhya Pradesh,

Delhi, Gujerat, Uttar Pradesh and Beawar and Bhilwara in Rajasthan and handloom cloth from Bhojpura. Opium is imported from Kota, dry fruits from Bombay and Delhi and imperishable vegetables and some varieties of fruit from Jodhpur, Ajmer and Abu.

Other imports include machinery, glass and china-ware, drugs, perfumes and cosmetics, metal articles, electric goods, etc.

No accurate figures of exports and imports of these various commodities are available.

Trade Centres

Wholesale Markets:—Mandis for wholesale trade in commodities like wool, gur, sugar, vegetables, grain (wheat, gram, *jowar*, *bajra*, *moong*, *moth*, *til*, etc.) exist at Barmer, Balotra, Siwana, Gadra Road, Chohtan and Gunga. Of these only Barmer, Balotra and Gadra Road are connected by rail and the rest by road. These markets are small by all-India standards but they play a very important part in the economic life of the district.

The only two major retail marketing centres are at Barmer and Balotra. Smaller retail markets exist at Siwana, Pachpadra, Shiv, Chohtan, Baitu, Sindhari, Samdari, Gunga, Mokalsar, Gadra Road and Munabao.

Fairs

There is only one major fair of commercial importance, i.e. the Tilwara fair, which is held every year for a fortnight in spring in the bed of the river Luni near Tilwara village. A detailed description is given in the chapter on Agriculture and Irrigation.

A fair is held every year on *Paus Badi* 10 (in the month of December) at the Jain temples at Meva Nagar. It is known as the Mela of Nakora Parasnath after a Jain tirthankar. Thousands of Jains from all parts of India attend this fair.

The Kapleshwar *Bishan Pagalia Suia* fair is held at Chohtan, 32 miles from Barmer, on *somvati amavasya*. In the valley among the hillocks overlooking Chohtan, there is a temple of Kapleshwar Mahadeo and a pond known as Kapal Tirth. About a mile uphill from here is another holy place (*Bishan Pagalia*), where there are footprints on a stone; the religious believe these to be the prints of Vishnu. In another valley there is a temple of Mahadeo. There are springs at all these places.

Another fair, the Kalyan Singhji-ka-Mela is held in the fort of Siwana to commemorate the heroic defence of the fortress against Allaiddin Khilji's army. It is held on Sawan Sudi 2 (in the month of August).

The fair of Kalyan Singhji in the ruins of Siwana fort and that at Bishanpagalia-Sula are now becoming less important but a fair, which seems to be becoming more popular, is the Shitala Mata-ka-Mela, held every year on *Shitalashtami* (eighth day of the dark half of *Chaitra*) at Siwana. Started in 1959 by the panchayat samiti, Siwana, the fair attracted about 10,000 people in 1962.

Co-operation in trade

A small beginning has been made in the sphere of co-operative marketing. There are three co-operative marketing societies, which in March, 1961 had a total membership of 190. There were also 12 consumers' co-operatives with a total of 1,356 members.

Subsidised sale

Acute scarcity conditions are the rule rather than the exception in this district. Almost every year some parts are declared famine areas and, apart from such relief as revenue remission, shops are opened in the affected areas for the sale of grain at subsidized rates. In 1960-61 nine of these grain shops were opened at various places in Barmer tehsil, six in Shiv, four in Pachpadra and one in Chohtan tehsil.

Weights and Measures

The former Jodhpur seer weighed 100 tolas as compared to the 80 tola British India seer. As elsewhere, it was divided into half seer, pao and chhatak weights, the last being equivalent to $3\frac{1}{2}$ paise (Dhabbu). For trade purposes, especially in the wholesale grain and vegetable markets, articles were often sold by the *panseri* (5 seer) and pao-man (10 seer) weights. The Jodhpur seer was in use alongside the standard weight up to the time of formation of Rajasthan, but only for local dealings.

The traditional measurement of distance, the *kos*, equivalent to about $1\frac{3}{4}$ miles, is still used by the village people. In land settlement operations the *jarib* (chain) in use is 132 ft. in length so that the bigha (chain $\times$ chain) is two-fifths of the standard acre.

As with coinage, the former system of weights and measures is gradually being replaced by the metric system.

CHAPTER VII

COMMUNICATIONS

OLD ROUTES

Till the advent of motor vehicles, the chief means of transport in this area were camels, horses and bullock-carts. The general shortage of drinking water supplies meant that all trade and traffic had to follow certain well defined routes. The unwary traveller straying from the beaten path was in grave danger of perishing, even when mounted on a camel. While trade through this area was never considerable, it was on the military route from Sind to Ajmer and many a fierce battle was fought on its terrain.

Major Walter's Gazetteer of Mallani (1877) refers to a caravan route from north-west India to Dwarka in the Kathiawar peninsula as passing through Jasol, Sindhari and Gura Mallani. On this route, much used by pilgrims, sweet water was available at every stage and wheeled vehicles could be used. Another route branched off from Jasol to Gadra¹ in Sind, passing through the villages of Sanli, Nosar, Chawa, Shokar, Barmer, Jasai, Siana and Khataikapur. On this route also water was sweet and abundant, except at Chawa, where it was brackish. The road, however, was not good: carts could be used only up to Barmer, beyond which the path lay through sand.

A third route to which Major Walter refers was via Jaisalmer to Rori Bakar and passing through Tilwara, Santara, Sodhan, Ratu and Ondu. Water and supplies were available on this route also, and carts could be used on it, though with some difficulty.

A fourth important route was from Barmer to Takhtabad via Akora, Chohtan, Bijrar and Kelnor, but it was used only by camels and horses due to the sand. Water was, however, plentiful in most seasons. There was also a route from Barmer to Gura Mallani through Mitra, Nokhra and Khandali, fit only for camels. Finally, there was a much-used route from Jodhpur to Mallani which passed

¹ Gadra village is now in Pakistan but the adjacent portion of Gadra lies within this district.

through Pachpadra and Jasol. This was a fairly good road suitable for carts.

ROADS AND ROAD TRANSPORT

Roads

The district is still deficient in good roads. No national highway passes through it, as it lies in a secluded, desert border region. Also, because the area is thinly peopled and its economic potentialities are rather limited, it has not been possible for the State Government to spare large funds for road-building. Thus, in the whole district there are only 661 miles, 7 furlongs of road, i.e., about 1 mile of road for every 16 square miles of area. Of this total length, only 50 miles, 3 furlongs are bitumenized and 30 miles metalled; gravel roads account for 546 miles, 4 furlongs and fair weather roads for the remaining 35 miles. The gravel roads, which account for the greater part of the total length, are suitable for jeeps, trucks and buses. Their irregular surface is hard on the springs and tyres of motor cars.

State Highways:—There are two roads, which fall into the category of state highways, i.e., that from Barmer to Jaisalmer, which is bitumenized up to Utarlai and is a gravel road thereafter, and the Barmer-Chhitalwana road via Dhorimana, which is gravelled throughout. The first has a total length of 54 miles, 6 furlongs up to the district border and the latter measures 68 miles. Though state highways, neither road is in very good condition.

Major District Roads.—A total of 172 miles, 2 furlongs of road come within this category. The roads concerned are:—

- (i) Shiv to Phalsund—a gravel road 38 miles long in the district.
- (ii) Barmer to Balotra—of a total distance of 71 miles, 22 miles are bitumenized, 20 miles metalled and the rest is a gravel road.
- (iii) Balotra to Jodhpur—this runs for 36 miles 6 furlongs in the district, of which 26 miles are bitumenized and the rest metalled.
- (iv) Balotra to Mokalsar via Siwana—a gravel road 26 miles 4 furlongs long.

Other District Roads:—There are only three gravel roads in this category, i.e., the road from Pachpadra to Madhpura, of which 23 miles lie in the district, the road from Shergarh to Agolai (32 miles) and the 55 miles long road Sindhari to Chhitalwana, which is gravelled for 33 miles and a fair weather road for the rest.

Village Roads and Others:—The following roads belong to this category:—

	Length		Type
	Miles	Furlongs	
Barmer to Chohtan	34	..	Gravel
Mevanagar (approach road up to Barmer-Balotra road)	6	4	Gravel
Samdari R.S. to Samdari village	2	..	Gravel
Utarlai to Barmer	6	..	Gravel
Gadra Road to Pakistan border	2	..	Gravel
Shiv to Gadra Road	46	..	Gravel
Ramasar to Balewa	15	..	Gravel
Balewa to Jalepa	6	4	Gravel
Ajit to Dhawa	6	..	Gravel
Samdari to Kalyanpura	13	3	Gravel
Seedra to Chitrasar	8	..	1 mile gravel and the rest a fair weather road.
Balotra to Khed Temple	5	2	Gravel
Chawa to Phalsund	38	..	Gravel
Pachpadra R. S. to Pachpadra town	1	5	Bitumen
Jasol to Tilwar	8	..	Gravel
Kanod to Pachpadra	12	..	Gravel
Barmer to Harsani via Bisala	13	..	Gravel
Barmer to Khadin Railway Station via Derasar	24	..	Gravel
Malai to Salt lake (Approach road)	5	..	Gravel
Approach road to Sekhala	0	4	Gravel
Gura to Jalor via Bishangarh (up to district border)	2	..	Gravel
Ramdeora to Nachana	1	5	Gravel
Approach road to Guranaka, Talab	0	6	Gravel

Thus the total length of village roads and roads otherwise unclassified comes to 256 miles and 7 furlongs.

Municipal Roads:—The Barmer Municipal Committee maintains 1 mile 686 yards of road. Of this, 1,680 yards are bitumenized and the rest gravelled. The details are as follows:—

Road	Type	Length
Station Road	Bitumen	$\frac{1}{4}$ mile.
Fanghat Road	Gravel	2,100 ft.
Khagal Road ^{SW}	Bitumen	900 ft.
Dhani Road	Bitumen	1,500 ft.
Police Station Road	Gravel	200 ft.

The Municipal Committee of Balotra maintains the following roads:—

Road	Type	Length
Station Road	Bitumen	$\frac{1}{4}$ mile.
Juna Kot to Khajri	Macadam	1,100 ft.
Railway Gate Road	Stone	600 ft.
Bhujmandi to Baldeoji-ki-pol	Stone	800 ft.
Mochiwara water hut road	Stone	300 ft.
Nayapura Road	250 ft. bitumen and the rest gravel	600 ft.
Gorka Chauk to Baldeoji-ki-pol via Ghanchi- wara	Gravel	$\frac{1}{4}$ mile

New Projects:—The following road works were taken in hand during the second Plan period and had been nearly completed at the time of writing:—

Road	Type	Length of the section under construction.
Ghoshan to Bhakassar	Gravel	20 miles
Chawa to Phalsund	Gravel	18 miles
Bachpadra to Kanod	Gravel	4 miles
Gura to Jalore (up to district border)	Gravel	3 miles
Barmer to Khadin	Gravel	12 miles

Road Transport

Vehicles:—In the whole district there were at the end of 1960-61, only 295 motor vehicles, as follows:—

Type of Vehicle	Number
Pick-up vans	10
Buses	68
Trucks	166
Cars	22
Jeeps	52
Tractor trailers	23
Motor cycles	4
	<u>295</u>

The reason for these very small numbers is that the district has few roads, and most of these are not bitumenized so that only heavy vehicles and jeeps can be used without inconvenience. Camel-back continues to be the most popular means of long distance transport in the interior.

Use of the bicycle, too, is necessarily limited to the urban areas as distances are great, water on the road routes scarce and deep sand present almost everywhere. Nearly all the bicycles in the district are concentrated in the towns of Barmer, Balotra and Pachpadra. There are municipal committees at the first two places, but as neither has imposed a cycle tax it is difficult to assess the number of such conveyances in the district. At a rough estimate it can, however, be put at around 200.

Tongas are almost non-existent, there being only two in Barmer town and none to be seen elsewhere. Transport in the towns is usually by bullock or camel-drawn cart, though there are also some three-wheeled hand-drawn carts in Barmer and Balotra.

Public Transport:—There is no State or municipal-owned public transport service. Private operators, however, run a number of bus services connecting places within and outside the district. Most of these services originate in the district itself, while others originate elsewhere and either pass through or terminate in the district. The Jodhpur-Balotra bus service is one such instance.

The main bus services connect the district headquarters town of Barmer and the sub-divisional town of Balotra with, among other places, Madpura, Pachpadra, Patodi, Padru, Mokalsar, Siwana, Sindhari, Chohtan, Dhorimana, Sanchore (in Jalore district), Bhakasar, Agolai (in Jodhpur district), Jasol, Phalsund (in Jodhpur district), Phagalia, Jodhpur, Jaisalmer and Pokaran (in Jaisalmer district).

Even though permits are freely granted to operators, usually the number of passengers is so small on the minor routes that only one bus runs daily on such routes, the operators plying their vehicles in turn through mutual arrangement.

The main bus routes are as follows:—

Route	Length (miles)	No. of buses
1. Balotra-Madpura via Pachpadra, Newai Reoda, Thob, Patodi Road, Sathoon	30	3
2. Balotra-Patodi via Pachpadra, Gogti, Rechoti	23	1
3. Balotra-Padru via Asoda, Bhudiwara Jagsa, Dakha, Deora, Mithodi	30	4
4. Balotra-Mokalsar via Muthali, Thopa, Kusip, Siwana	32	7
5. Balotra-Sanchore via Asoda, Tapra, Kalvari, Dhuka Sindhari Oalia, Sura, Guda, Chhitalwana, Amli	99	12
6. Balotra-Jodhpur	70	18
7. Barmer-Sindhari via Kurla, Rawasar, Chawa, Kheriji, Saenan	41	3
8. Barmer-Chohtan via Undhaka, Ranigaon, Radwas, Sawan-lora, Akara, Dhudhwa, Saneoo	32	6
9. Barmer-Dhorimana via Khurja, Hathitala, Sanwara, Bassan, Sobhala, Roh	56	4
10. Barmer-Harsani via Jalepa, Bhadras, Basala, Dundaberi, Nand, Didiyar, Balewa	55	2
11. Barmer-Bhakasar via Mahavi, Ramond, Gula-ki-Bari, Sathu and Artu	96	3
12. Barmer-Jaisalmer via Devikot, Gunga	100	7
13. Padru-Morsem	34	1
14. Chohtan-Bhakasar via Kaparan, Bijasar, Indren-ka-tala, Ban-ka-tala	50	1
15. Gunga-Pokaran	100	2
16. Gunga-Phalsund	50	1
17. Samdari-Agolai via Duggar, Chali, Banai, Ajit	48	3
18. Mokalsar-Phaina	76	2

RAILWAYS

The first railway line in this area, a branch line of the Jodhpur Railway from Luni Junction to Pachpadra via Balotra, was opened on March 23, 1887. The main intention does not appear to have been to provide passenger facilities but to enable the fuller exploitation of the salt beds. The total length was 60.51 miles. Later, the line was extended from Balotra into Sind via Barmer, the length of this extension up to the British India border being 134.44 miles. This section, known as the Balotra-Shadipalli Railway, was opened on December 22, 1900.

In 1931, a branch line from Samdari to Raniwara (95.23 miles) via Jalore was constructed. Only about 23 miles of this line lie in Barmer district, the last station being Mokalsar.

During the thirties, the realignment of the Balotra-Pachpadra section was undertaken. A portion of 6.75 miles as far as Pachpadra was opened on September 26, 1939 and on April 11, 1940 the line was completed up to the Salt Depot.

Stations & Trains.—The rail sections in this area came under the administrative control of the Northern Railway after the merger of the princely states. The lines are all metre-gauge. As far as the district is concerned, the main line is that from Luni Junction to the Pakistan border. This enters the district at Ajit and terminates at Munabao near the border, the total length in the district being 161 miles (259 Km). The stations are: Ajit, Samdari Junction, Parlu, Janiana, Balotra Junction, Khed Temple, Tilwara, Gole, Bhimarlai, Baitu, Banai Sanda Dhora, Kawas, Utarlai, Barmer, Jasai, Khadeen, Bachbhar, Ramasar, Gagaria, Gadra Road, Lilma, Jaisinder and Munabao. Two trains, one an express and the other a passenger, run each way every day as far as Barmer. At present, the Up Express arrives at Barmer at 4.20 a.m. and the Passenger at 2.25 p.m.; the Down Express leaves Barmer at 0.35 a.m. and the Passenger at 5.40 a.m. All are through trains to Jodhpur via Luni Junction.

Persons bound for and coming from the border have to detain at Barmer. Only one passenger train runs daily each way between Barmer and Munabao. The Up Passenger from Barmer leaves at 7 a.m., arriving at Munabao at 12.30 p.m. and the Down Passenger leaves Munabao at 5 p.m., arriving at Barmer at 10.30 p.m.

Between Balotra and the Pachpadra Salt Depot three Passenger trains run each way every day. The trains from Balotra leave at 5 a.m., 11.30 a.m. and 1.30 p.m. respectively, and those from the

Depot at 7-25 a.m., 4-03 p.m. and 4-45 p.m., respectively. There are only three stations on this route—Balotra, Pachpadra city and the Salt Depot. The trains cover the distance in about one and a quarter hours.

Only a small section of the branch line from Samdari towards Jalore and beyond lies in this district. The four stations are Samdari, Bamsin, Rakhi and Mokalsar. Passenger trains leave daily from Samdari at 4.45 a.m. and 11.15 a.m. and the return trains arrive at this place at 0.11 a.m. and 9.25 a.m.

Altogether, there are only 191 miles of railway track in the whole district.

Through carriages (III class) from Delhi, Agra Fort, Marwar and Palanpur run up to Barmer. The coaches from Delhi and Agra Fort are attached to the Up Passenger train and those from Palanpur and Marwar Junction to the Up Express. The carriages return on the Down trains. Buffet cars are attached to the passenger trains from Jodhpur to Barmer and Barmer to Munabao.

The passenger traffic is not very considerable and the present services are adequate. A considerable part of the traffic consists of people going to or coming from Pakistan.

Economic Aspect:—The railways have to a certain extent minimized the rigours of famine, enabling the speedy despatch of relief to stricken areas. Water is also supplied to scarcity areas in railborne tanks. Unfortunately, there are no branch lines into the interior. Because of the lack of good roads, the railways play a very important part in the economic life of the area and all the towns and most of the centres of small industrial activity are concentrated on the rail-routes. However, though in the interest of famine relief work it is desirable that branch lines be built into the interior, this would not be economic as the sandy desert has no agriculture worth the name nor are there any metallic minerals or raw materials for industry, which would justify the expense at this stage.

AIRFIELDS

There is no air service to the district, but emergency landing grounds exist at Utarlal, Tilwara and Gadra Road. Formerly, there was another landing ground at Shiv, but this was abandoned in 1942. All these landing grounds were constructed during the days

when the district was part of Jodhpur State. The field at Utarlal, eight miles from Barmer, is now maintained by the Government of India. It is enclosed by a fence and is in good condition. The other airfields are not as well maintained.

AMENITIES FOR TRAVELLERS

Dharmashalas

In the days of caravan traffic, *dharmashalas* used to be maintained at halting places along the main trade routes. Many of these have long since disappeared, but *dharmashala* still exist at Barmer, Balotra, Mewa Nagar, Khed, Mokalsar, Ajit, Gadra Road, Jasai and Pachpadra.

Rest Houses

The Public Works Department maintains dak bungalows at Balotra and Barmer and rest houses at Siwana, Tilwara, Gura Mallani and Sindhari. The Balotra dak bungalow has three rooms. It has recently been electrified and running water is available during certain hours. The Barmer dak bungalow has only two rooms, but two more are to be added. It has also been electrified recently and tap water is available for a few hours.

The Tilwara rest house has six rooms. The Siwana rest house has two rooms and those at Gura Mallani and Sindhari one each. There are water connections in all the rest houses, but neither here nor in the dak bungalows are there cooks on the establishment although utensils are kept for those who may wish to use them.

The railway authorities have constructed rest houses at Samdari, Balotra, Baitu, Barmer, Gadra Road and Munabao apart from waiting rooms at several stations. The land customs have their own rest house at Barmer and the Salt Department a dak bungalow at the Pachpadra Salt Depot for the use of their officials.

Hotels

There is no hotel in any of the towns, though some of the restaurants in Barmer and Balotra do keep lodgers.

POSTS AND TELEGRAPHS

The Jodhpur Darbar adopted Imperial postal unity in 1885, following which experimental post offices were set up at various

places in the State including Barmer and Balotra. The post offices at these two places were made permanent on June 1, 1911.

Today, there is not a single full-fledged post office in the district. There are, however, 62 offices of different categories; of these, six are sub-offices, all permanent except those at Pachpadra city and Chohtan. The remaining 56 are branch offices, 17 being permanent. Telegraphic facilities are provided at four offices only, viz., Barmer, Balotra, Pachpadra city and Siwana, but there are plans to provide these facilities at Shiv, Bagi Dora and Chohtan also.

In the towns and nearby villages, mail is distributed daily, but there are villages in the interior where delivery of a letter may take as long as two weeks. Even the headquarters of some of the panchayat samitis are not served in quick time.

The following is a list of post offices in the district (the dates of opening are given in brackets):

Post Offices	Nil.
Sub-Offices	1. Barmer (1-6-1911)
	2. Dhani Bazar, Barmer town sub-office (15-9-58)
	3. Chohtan (2-2-52)
	4. Balotra (1-6-1911)
	5. Pachpadra city (1-1-35)
	6. Siwana (1-11-32)

The sub-offices at Chohtan and Pachpadra city were originally started as extra-departmental branch offices and that at Siwana as a departmental branch office. They were raised to the status of sub-offices on the following dates: Chohtan 14-3-1957; Pachpadra City 16-3-1956, and Siwana 1-3-1956.

Extra-departmental Branch Offices.

1. Bataru	.. .. .	(26-2-52)
2. Beitu	.. .. .	(1-4-33)
3. Bakhasar	.. .. .	(24-12-54)
4. Bachbhar	.. .. .	(17-2-60)
5. Bhawatra	.. .. .	(9-5-55)
6. Bisala	.. .. .	(2-2-59)
7. Bisarniya	.. .. .	(6-8-52)
8. Bisasar	.. .. .	(27-2-60)
9. Birkhank Tala	.. .. .	(15-12-54)
10. Asadan	.. .. .	(28-1-52)
11. Asotra	.. .. .	(2-2-59)

12. Chawa	.. .. .	(25-2-52)
13. Chhitar Kapar	.. .. .	(17-2-59)
14. Dhorimans	.. .. .	(22-2-60)
15. Dhudha	.. .. .	(5-3-52)
16. Gagariya	.. .. .	(19-2-60)
17. Gadra Road	.. .. .	(1-9-33)
18. Girab	.. .. .	(15-6-55)
19. Giran	.. .. .	(21-3-55)
20. Gunga	.. .. .	(1-3-43)
21. Gura Mallani	.. .. .	(8-2-60)
22. Hodu	.. .. .	(28-3-52)
23. Jasai	.. .. .	(10-4-50)
24. Jasol	.. .. .	(1-4-35)
25. Kawas	.. .. .	(1-4-30)
26. Karmawas	.. .. .	(15-9-58)
27. Khandap	.. .. .	(1-9-45)
28. Kanana	.. .. .	(5-1-60)
29. Khudala	.. .. .	(4-2-60)
30. Lilma	.. .. .	(1-4-40)
31. Mahabar	.. .. .	(20-2-52)
32. Medusar	.. .. .	(29-2-52)
33. Munabao	.. .. .	(15-2-54)
34. Majal	.. .. .	(18-2-60)
35. Mokalsar	.. .. .	(2-7-30)
36. Nokhra	.. .. .	(15-2-60)
37. Nagarvewa	.. .. .	(6-2-60)
38. Netrar	.. .. .	(13-2-52)
39. Pareu	.. .. .	(15-2-60)
40. Payalakalan	.. .. .	(2-2-60)
41. Pachpadra Salt	.. .. .	(1-12-35)
42. Parlu	.. .. .	(8-7-26)
43. Patodi	.. .. .	(1-10-29)
44. Padru	.. .. .	(29-2-52)
45. Ramsar	.. .. .	(1-11-30)
46. Ranigaon	.. .. .	(24-2-60)
47. Rawatsar	.. .. .	(25-2-52)
48. Rakhi	.. .. .	(10-2-58)
49. Ramnia	.. .. .	(7-12-59)
50. Sanawara	.. .. .	(26-2-60)
51. Sarnu	.. .. .	(15-2-60)
52. Sindhari	.. .. .	(29-2-56)
53. Sintara	.. .. .	(22-2-60)
54. Sawaipadam Singh	.. .. .	(2-3-52)
55. Sedwa	.. .. .	(20-12-54)
56. Siyania	.. .. .	(18-7-56)
57. Sirana	.. .. .	(31-3-56)
58. Shiv	.. .. .	(1-10-34)
59. Samdari	.. .. .	(1-4-33)
60. Taratara	.. .. .	(29-2-52)
61. Utarlai	.. .. .	(16-11-36)
62. Utarlai Mines	.. .. .	(15-11-58)

Telephones

There are two telephone exchanges in the district, at Barmer and Balotra, respectively. The Barmer exchange, established on August 1, 1949, works all 24 hours and has 49 permanent connections. The exchange at Balotra which was opened on November 11, 1956 has 30 connections; it operates from 6 a.m. to midnight on week-days and 8 a.m. to 8 p.m. on Sundays.

Public call offices have been opened at Samdari and Manabao. The Samdari office works from 10 a.m. to 6 p.m. on week-days and 10 a.m. to noon on Sundays and holidays. The Manabao office is open from 6 a.m. to 2 p.m. on week-days and 6 a.m. on Sundays and holidays. Public call offices have also been provided at the Barmer and Balotra sub-post offices.

Radio Stations

The district has no radio transmitting stations except those for the official use of the Commandant, Rajasthan Armed Constabulary, the Superintendent of Police and the Anti-locust Organisation of the Government of India.

The total number of registered radio receiving sets in the year 1960 was 774.

CHAPTER VIII

MISCELLANEOUS OCCUPATIONS AND ECONOMIC TRENDS

MISCELLANEOUS OCCUPATIONS

No records of the number of persons engaged in various occupations prior to 1951 exist, as this district was carved out of several parganas of the former Jodhpur State and separate figures for the parganas are not available.

Public Service

In the 1951 Census, public servants are listed in various categories such as those working in government offices, municipalities and other local bodies, police, village watchmen and other village officials and servants. The Census has not taken separate note of government servants such as teachers, doctors, engineers, etc.; these have been shown with others in their separate specialized occupations. Thus, it is not possible to estimate accurately the total number of public servants; the main categories are, however, listed in the statement given later in this chapter.

The number of those in public service has increased considerably since 1951 due to the setting up of new district offices and particularly in view of the increase in the Government's development functions.

Professions

Because of the lack of technical institutions, the teaching, medicine and law professions are not well represented. Also, the climate of the area, the shortage of water and other facilities and limited opportunities for practice (the area is sparsely peopled and there is no large town) have tended to keep away professional men. However, because of the opening of a large number of state-run schools and the increase in the number of district courts, the numbers of teachers and lawyers have risen appreciably in the past 10 years; the rate of progress in the medical field has been slower. At the time of the 1951 Census there were only 129 teachers in the district,

eight registered doctors, two nurses and midwives and three lawyers. By the end of 1960-61 these numbers had risen to more than 750 teachers (41 of them running private schools), 12 doctors, seven nurses and midwives and 41 members of the legal profession.

Others

Large numbers of people are engaged in small industries and in miscellaneous services like trade, construction work and the rendering of personal service such as tailoring, hair-cutting and domestic service. There is a total absence of large industry.

The following table shows the numbers of persons shown in the 1951 Census as deriving their main source of income from various non-farming occupations; the table is not comprehensive, nor is it entirely accurate as some of the occupations are so closely allied that mistakes in entries have been inevitable:—

Type of Occupation	No. of persons
1. Herdsmen and shepherds	2,849
2. Breeders of domestic animals	1,637
3. Wood-cutters	137
4. Workers in stone-quarries, clay and sand pits	391
5. Employees of salt works	201
6. Flour grinders	125
7. Oil pressers	91
8. Bidi-makers	93
9. Cotton-ginners	41
10. Yarn spinners	126
11. Cloth weavers	1,411
12. Dyers and printers	614
13. Tailors	1,004
14. Shoe makers	566
15. Other leather workers	230
16. Blacksmiths	298
17. Gold and silver ornament makers	258
18. Bangle-makers	50
19. Brick-makers	105
20. Potters	583
21. Stone goods workers	105
22. Carpenters	338
23. Scavengers	235
24. General merchants	736
25. Pedlars	138
26. Sellers of gold and silver-ware	51

Type of Occupation	No. of persons
27. Sellers of dyes	156
28. Sellers of iron and brass-ware	30
29. Grain shop-keepers	371
30. Sellers of sugar and gur	36
31. Sellers of meat	28
32. Spice merchants	1,952
33. Sellers of ghee and oil	151
34. Confectioners	94
35. Turmeric sellers	163
36. Betel shop-keepers	32
37. Sellers of wood	125
38. Sellers of wool	450
39. Sellers of cloth	1,472
40. Sellers of leather shoes	91
41. Wholesale grocers	137
42. Wholesale dealers in sheep and goats	33
43. Wholesale dealers in gunny bags	166
44. Wholesale dealers in cattle	33
45. Money-lenders	560
46. Brokers	165
47. Motor drivers	141
48. Camel drivers	256
49. Bullock cart drivers	184
50. Earth and stone carriers	125
51. Railway employees	348
52. Railway station porters	74
53. Doctors	8
54. Vaidas	11
55. Dispensaries staff	15
56. Teachers	129
57. Employees of Police Department	393
58. Village watchmen	917

Type of Occupation	No. of persons
59. Municipal servants	47
60. State Government employees not otherwise classified ..	602
61. Union Government employees not otherwise classified ..	701
62. Labourers	2,209
63. Domestic servants	488
64. Barbers	485
65. Washermen	60
66. Hotel and restaurant employees	94
67. Musicians	243
68. Priests and others serving in temples and mosques ..	235

The list shows that the number of persons engaged in petty trade and private small industry is very large. In the case of industry, the unit is often the family though the Government is encouraging the formation of co-operatives especially in those occupations where the bulk of workers belong to the same sub-community. The condition of individual workers is far from satisfactory; they have to dispose of their goods quickly in order to be able to buy fresh raw material and are thus at the mercy of the trading class which, by and large, is well off. More details of the economic condition of industrial workers and the efforts being made to improve their lot are to be found in the chapter on Industries. Those rendering personal services to the public, e.g., barbers, washermen, domestic servants, etc., are also not well off. As elsewhere, government service is much sought after because of the security it offers and the higher wages.

ECONOMIC TRENDS

Livelihood Pattern

The industrial potential of the district is very low and, therefore, in spite of the dry climate and lack of good soils, as much as 77.4 per cent of the population depend directly or indirectly upon agriculture (including animal husbandry) for their livelihood (1951 Census figure). If absentee landlords are excluded, the percentage is 76.4. In 1951, ownership of cultivable land in the district was concentrated in the hands of a few, as much as 66.4 per cent of the agriculturists cultivating land wholly or mainly unowned. Cultivating labourers and non-cultivating owners of land formed 0.9 and 1 per cent, respectively,

and cultivators of owned land only 9.1 per cent. This was because the greater part of the area was held in jagir. The position has, of course, changed with the abolition of big estates.

Not much change has, however, taken place in the non-agricultural sector, which in 1951 formed only 22.6 per cent of the population. Persons deriving their livelihood from miscellaneous sources formed the largest group (8.8 per cent) in the non-agricultural category closely followed by those in industry (7.6 per cent). Next were traders with 5.7 per cent. The smallest itemized source of livelihood was the transport industry, which supported only 0.6 per cent of the population.

Among the rural population, agriculturists formed an overwhelming majority (83 per cent) of whom 71.3 per cent were cultivators of unowned land. Owner cultivators formed 9.7 per cent and cultivating labourers and non-cultivating owners about 1 per cent each. Among non-agricultural classes, miscellaneous sources again provided a means of livelihood to the largest group (7.4 per cent) followed by workers in industry and traders with 5.7 per cent and 3.4 per cent, respectively. Transport supported only 0.4 per cent of the rural population.

In the urban areas, 93 per cent of the people fell in the non-agricultural category, traders forming the biggest group with 33.4 per cent. Industrial owners and workers formed 30.7 per cent and transport 3.3 per cent. Among the agricultural classes, owner cultivators formed 1.9 per cent and cultivators of unowned land 4.6 per cent. Non-cultivating owners of land and cultivating labourers totalled 0.3 and 0.2 per cent, respectively.

Economic Status

Of every 10,000 people belonging to the agricultural classes, 4,177 were self-supporting persons, 1,044 earning dependants and 4,779 were non-earning dependants. Only 20.9 per cent of these classes possessed a secondary source of income of whom 18.41 per cent were earning dependants and the rest self-supporting. Including whole time and part-time workers, there were 1,78,321 people in the district working in the sphere of agriculture.

Among the non-agricultural classes, about 60.51 per cent were non-earning dependants and 7.73 earning dependants. Of every 10,000 persons belonging to these classes, 25 were employers, 1,983

employees, 7,510 independent workers and 482 economically unproductive self-supporting persons.

A class-wise analysis of the economic status of the people following occupations comprised in each non-agricultural class shows that:—

(1) among persons engaged in Industry (production other than cultivation) 11,809 were self-supporting persons (forming 35.34 per cent of the total), earning dependants were 4,508 (13.49 per cent) and non-earning dependants 17,096 (51.17 per cent);

(2) among those engaged in Trade, 7,403 were self-supporting persons (forming 29.55 per cent), earning dependants totalled 629 (2.51 per cent) and non-earning dependants 17,019 (67.94 per cent);

(3) in Transport, 1,225 were self-supporting (47.57 per cent), earning dependants 95 (3.7 per cent) and non-earning dependants 1,255 (48.73 per cent);

(4) amongst persons engaged in other Services and deriving income from Miscellaneous Sources, 11,231 were self-supporting (29.04 per cent) 24,965 (64.55 per cent) were non-earning dependants and 2,478 earning dependants.

Non-productive sources of income provide a means of subsistence for 1,526 persons. Most of these (1,469 persons or 96.9 per cent) were beggars and vagrants. There was one self-supporting beggar per 21 self-supporting persons in the total population.

Price level

The value of the rupee at the turn of the century can be gauged from the fact that wheat sold at 11 seers per rupee, barley and *bajra* 15 seers, *jowar* 16 seers and gram 17 seers. The extent to which prices have risen during the past 60 years is seen by a comparison of the above prices with those listed in the following table, which covers the period 1955-60:

		Retail prices of food-grains (average)				
		(Rs. per maund)				
Year		Wheat	Barley	Gram	Jowar	Bajra
1955	.. ..	13.22	8.81	11.00	7.75	7.98
1956	.. ..	15.03	12.77	12.25	11.58	13.49
1957	.. ..	17.21	12.35	13.41	13.22	15.97
1958	.. ..	18.44	14.03	15.48	13.11	14.96
1959	.. ..	21.19	12.50	16.85	13.81	15.33
1960	.. ..	20.32	12.00	14.59	12.97	14.83

Prevailing prices for other commodities are: rice, between Rs. 24 and Rs. 54 per maund, depending upon quality; *ghee*, Rs. 6 per seer, sugar Rs. 41 per maund and milk 50 nP. to one rupee per seer. Most pulses are available between 50 nP. and one rupee for the seer. Firewood ordinarily sells around Rs. 1.50 per maund and kerosene oil at about 31 nP. for a quart-size bottle.

The prices of all foodgrains showed a marked upward trend during the early years of the second Plan period, reaching their highest level in 1959, after which there was some fall in most cases. The rise was most conspicuous in the case of *bajra*, the staple winter foodgrain of the masses, which rose from Rs. 7.98 in 1955 to Rs. 17.28 at the end of 1960 (the figure given in the table is the average for the year), an increase of more than 100 per cent. Wheat, another very important grain, registered a price rise of almost 50 per cent. Among other cereals, barley rose, during the same period, by Rs. 3.19 per maund, gram by Rs. 2.59 and *jowar* by Rs. 5.22.

Wages

Around the beginning of the present century the wages for different kinds of labour ranged between 4 to 12 annas per day. Now, the daily wage level in industry varies from Rs. 1.50 to Rs. 1.75 for adults and from Re. 1.00 to Rs. 1.50 for women and boys. Skilled workers like masons, carpenters, etc., earn up to Rs. 5 per day. While wages have thus considerably increased since the Political Agency Gazetteer was written, the fixed wage earner is probably not as well off as before as the general price level has risen at a higher rate. Also, because the area is industrially backward, and the workers are not organised, wages tend to be lower than in most parts of the State.

Domestic servants are kept only by the more well-to-do in the urban areas and, of course, the Thakurs. If employed whole-time, the usual wage is around Rs. 20 per month plus food. The more common practice, however, is to employ domestic servants for specific tasks, the monthly wage for about an hour of daily work varying from Rs. 5 to Rs. 10. Private chowkidars are kept only by ex-jagirdars and wealthy men, who are few in this district. The fee paid to midwives depends on the financial condition of the employer. For a ten-day service, the normal fee is about Rs. 20 but this varies according to the reputation built up by the midwife.

Rural Wages

There is not much difference in the maximum and minimum rates paid for various agricultural jobs like weeding, reaping, irrigation, etc. The maximum daily wage for weeding is Rs. 3 and the minimum a man will accept is Rs. 1.50. Women are paid at lower rates, the maximum and minimum in their case being Rs. 1.75 and Re. 0.75 respectively. Wages for reaping are slightly higher, as the work is more arduous. Men receive between Rs. 2 and Rs. 3.50 per day and women between Re. 1 and Rs. 2. Irrigation labour is employed only in the eastern tehsil of Siwana and the daily wage is between Rs. 2 and Rs. 3. Sometimes such wages are paid in kind at the rate of 15 Mds. of wheat for the whole season. There is also the system of keeping permanent farm attendants (*hali*) who are expected to live at the farm site and do all the work. A *hali* is usually paid Rs. 300 in cash for the whole year, besides free lodging and food, which also includes tobacco and three pairs of *dhoties*, three shirts, a pair of shoes, a turban and a sheet (*pacheri*).

Standard of living

Major K. D. Erskine, in the Gazetteer of 1909, says of the style of living of the people of Marwar:

"The material condition of the urban population is on the whole satisfactory, and the standard of living is considerably higher than it was 50 years ago; the agricultural population, on the other hand, has become impoverished from bad seasons, and where there has not been a perceptible falling off, there has at any rate been little or no progress. The style of living of the middle-class clerk, the landless day-labourer and the ordinary cultivator in former days and at the present time may be briefly noticed.

"The clerk has certainly improved in every way. In place of the scanty, coarse and clumsy clothes which characterized his superior. The fine Manchester-made cloth has superseded the local predecessor, he has adopted a style of dress which is both costly and *reza* and the *dhoti* has made way for a pair of trousers; his children and women are better dressed, and on occasions of marriages and festivals there is often a display of glittering finery in clothes and ornaments. An improvement in the design, construction and furniture of his habitation is also noticeable. The *kachha* or humble thatched dwelling has been replaced by a *pucca* house, the floors and walls of which are plastered instead of being occasionally coated with

cow dung; the rooms are larger, loftier and better ventilated, and latrines, formerly conspicuous by their absence, now form part of almost every building. The bare floors are often covered with cheap carpets or rugs, and the furniture includes a few stools, chairs, a table and some bedsteads. Metal cooking utensils have taken the place of earthen pots, and the food is generally of a better class—wheat instead of *bajra* and *moth*. The smoking of foreign cigarettes and the chewing of betel-leaves, formerly regarded as veritable luxuries, is common, and there is hardly a clerk who has not got his *chakar* or servant, while some also keep a female domestic (*deori*).

"The landless day-labourer, whether a porter at the railway station, a mill-hand, a household servant, a water-carrier, etc., has also made great strides. He has discarded the rude surroundings of his village and has plunged headlong into a city where he gets higher wages than he used to. Lastly, there is the cultivator, a stationary being from whom the spirit of the times and the genius of modern civilization evoke no sympathetic response. He has shown no preference for new implements of agriculture, but plods along as best as he can with his antiquated tools. He is generally in debt and his style of living as regards dress, food, house and furniture is much the same as it was 20 years ago".

During the half century since Major Erskine recorded his observations, the general standard of living of the town dweller has made little progress. In fact, since the start of the second World War, due to the phenomenal rise in prices those in the fixed income groups have become worse off than they were 25 years ago. Very few clerks can afford a full-time servant, as was the case in Erskine's time, and almost the entire income is spent on the basic necessities of food, clothing and shelter. At the same time, the years have brought about changes in fashion. Western-type clothes have become popular among men, furnishings and decorations have changed and the consumption pattern has altered with the introduction of a variety of consumer goods. In the rural areas, the agriculturists are perhaps better off than before due to the new tenancy laws and the benefits brought about by the community development programme. As they are primary producers, the general rise in prices has not affected them to the extent that it has the fixed wage earners.

No family budget survey has ever been conducted in the area, but in 1951 the Reserve Bank did conduct a survey of rural credit. According to its Report, all families reported expenditure on the

purchase of cloth, shoes, bedding, etc. 9.9 per cent families on marriages and other ceremonies, 7.8 per cent on the purchase of household utensils, furniture etc., 6.7 per cent on construction and repair of residential and other buildings, 4.2 per cent on medical expenses, 2.8 per cent on litigation charges and 2.1 per cent on educational expenses.

The break-up of these reporting families as between cultivators and non-cultivators was as follows:—

Item	% reporting expenditure	
	Cultivators	Non-cultivators
1. Purchase of clothing shoes, bedding etc. ..	100	99.5
2. Construction and repair of residential houses and other buildings	6.4	10.9
3. Purchase of household utensils, furniture, etc. ..	7.3	13.3
4. Death ceremonies	2.0	2.6
5. Marriage and other ceremonies	10.6	2.6
6. Medical expenses	4.4	2.6
7. Education expenses	1.7	5.9
8. Litigation charges	3.1	..

Cultivators were found to spend 54.5 per cent of their average expenditure (Rs. 366) on the purchase of consumer goods, 35.1 per cent on death, marriage and other ceremonies, 5.4 per cent on education, litigation and medicine and the remaining 5 per cent on the construction and repair of houses and other buildings. On the other hand, non-cultivators, with an average expenditure of Rs. 182, spent 3 per cent on the construction and repair of residential and other buildings, 82.7 per cent on the purchase of consumer goods, 6.3 per cent on death, marriage and other ceremonies and 8 per cent on medicine, education and litigation.

Employment

As stated earlier, agriculture is the principal occupation. Other occupations have also been dealt with earlier in this chapter. On the whole, it may be said that, with the increase in small industry in the towns, there is some movement away from agriculture as a means of livelihood, but the trend is not as yet very pronounced.

Employment Exchanges; There is no separate employment exchange in the district. Barmer, along with six other districts, comes under the jurisdiction of the employment exchange at Jodhpur. Since the Jodhpur office does not maintain separate records for each district, it is not possible to assess the extent to which people seek work through the exchange. Unemployment and under-employment are, however, major problems.

PLANNING AND DEVELOPMENT

Community Development

The Community Development Programme was started in the district in 1954 with the opening of a development block in the eastern tehsil of Siwana. Since then the programme has steadily expanded so that the entire rural population has now been covered. In October 1959, the community development programme was merged into the wider scheme of democratic decentralization, the main object of which is to enable the people to draw up and implement development schemes for their own areas. The main features of democratic decentralization have been described elsewhere; it would be sufficient to observe here that, to enable the panchayat samities to function effectively, the Block Development Officers (each samiti area coincides with what was formerly known as development block) have been attached to them and they are also assisted by technical personnel (Extension Officers) in the fields of industry, agriculture, animal husbandry, co-operation etc.

Siwana: The Siwana development block, the oldest in the district, was inaugurated as a National Extension Service block on October, 2, 1954. It was converted into a First Stage block on April 1, 1956 and on April 1, 1959, into a Second Stage block. This is the only full-fledged community development block in the district.

The block (now panchayat samiti area) covers about 61,000 persons in all 89 villages of Siwana tehsil, an area of 760 square miles. The headquarters are connected to important places in the district by road. The nearest railway station is Mokalsar, on the Samdari-Raniwara line, eight miles away.

By the end of 1960-61, in the field of agriculture and irrigation, 19,068 maunds of improved wheat and bajra seed, 1,393 improved iron ploughs, three seed drillers, 12 motor wheels besides other agricultural implements had been distributed, 2,744 compost pits

had been dug, 52,351 maunds of manure prepared, 384 *kachha* and *pucca* wells constructed, 101 wells repaired, 10 pumping sets installed, 4,000 ft. of channels dug, 12,208 acres of land bunded and 4,376 acres had been reclaimed. A total of 1,140 agricultural demonstrations had been organized. In order to improve livestock breeds, 35 bulls and 62 rams had been supplied to breeders.

In the field of co-operation, two credit co-operatives, 41 industrial co-operatives and ten joint farming societies had been formed.

In order to improve water supply, 103 new drinking water wells had been constructed and 90 wells renovated. Fifty-six literacy centres had been started as well as a reading room and library at headquarters. New types of smokeless *chulhas* (cooking ranges) were tried on an experimental basis and a total of 12 had been installed by the end of March 1961.

Shiv: The Shiv block was inaugurated as an N.E.S. block on October 2, 1956 and became a First Stage block in April, 1958. It extends over an area of 2,448 square miles covering 74 villages with a population of 45,000. There is a gravel road from Barmer to Shiv. The nearest railway station is Barmer, 32 miles away.

Progress in this block up to the end of 1960-61 has also been encouraging. In the sphere of agriculture, 1,426 maunds of *bajra* seed and 2.20 maunds of groundnut seed had been distributed, bunding of fields had been completed over 150 acres and 14 *tankas* had been constructed.

The emphasis in this area is on animal husbandry since the tract is arid and there is very little agriculture. Thus, as many as 15 private cattle breeding farms and nine sheep breeding farms have been established. The Department had supplied 14 bulls and 74 rams to private breeders by the end of 1960-61. In the field of public health, 13 drinking water wells and 14 *tankas* had been constructed. The number of co-operative societies in existence on March 31, 1961 was 29, with a membership of 820. Under education and social welfare schemes, four youth clubs, 36 primary schools, two middle schools and a *mahila mandal* were established. There was also a training centre for handloom weaving where 10 students were trained.

Pachpadra: The Pachpadra block was sanctioned as a pre-extension block on June 1, 1958. The headquarters are at the sub-

divisional town of Balotra, which is an important junction on the Jodhpur-Barmer-Munabao line. The block was converted into a First Stage block on April 1, 1959. It covers 159 villages with a population of 71,865 and an area of 1,324 square miles of Pachpadra tehsil.

By the end of 1960-61, 580 maunds of improved *bajra* seed, 100 iron ploughs and 20 seed drillers had been distributed under the agricultural improvement plan. Also, 19 *kachha* and 16 *pucca* wells had been constructed and 14 *kachha* and 17 *pucca* wells repaired, nine pumping sets and 17 persian wheels installed, 287 acres of land reclaimed and bunding completed on 2,704 acres. For animal husbandry improvement, 15 cattle breeding farms, 24 sheep breeding farms and a sheep shearing shed had been established, 25,441 animals castrated, 35,095 animals vaccinated and 6,990 treated for various diseases. Under the public health and social welfare schemes, 2,199 patients had been treated, 146 wells disinfected, 14 drinking water wells constructed and six repaired and 52 literacy centres and 21 reading rooms had been established. Fourteen youth clubs had been organized. In order to improve communications, two miles of *kachha* road had been constructed and improvements effected on 17 miles of existing road. In the field of industries and co-operation, 20 brick kilns had been started and three credit and multi-purpose co-operative societies, six industrial societies and a joint farming society established.

Gura Mallani: The Gura Mallani block, covering parts of Barmer and Chohtan tehsils, was formed as a pre-extension block on June 1, 1959, and was converted into a First Stage block on April 1, 1960. The block covers an area of 1,037 square miles in 104 villages and a population of 70,473. Gura Mallani village is connected by road to Barmer. The nearest railway station is Baitu, 46 miles away.

By 31st March, 1961, 1,165 maunds and 35 seers of improved seeds (besides about 10 mds. of cotton seed) had been distributed, an area of 3,416 acres brought under irrigation, two pumping sets and 3 *rahats* installed, 80 compost pits dug, 72 maunds and 26 seers of compost distributed, 3,397 fruit trees and 5,336 shady trees planted and a total of Rs. 67,100 given in irrigation loans.

In the field of animal husbandry, three poultry farms, having a total of 158 birds and eight sheep breeding farms with 257 sheep had also been opened. A total of 27,286 animals had been vaccinated

As a part of public health activities, a primary health centre and five dispensaries (at Gura Mallani, Bheemaja, Dhorimana, Bamdala and Dhudu, respectively) were opened. Fifty drinking water wells were constructed and 583 disinfected. Small-pox vaccinations numbered 1,656. Sixty first aid boxes were given to various panchayats.

In the field of education, 66 primary schools (with 2,156 boys and 161 girls on the rolls) were functioning. There were also two middle schools at Dhorimana and Gura Mallani. Seven *mahila mandals*, 12 youth clubs and 15 *hhajan mandals* had been established. Adult education centres educated 1,012 adults. An information centre was also opened at Gura Mallani.

At the end of the Second Plan period there were 51 co-operative societies in the area with a total membership of 2,717, a working capital of Rs. 27,37,720 and a share capital of Rs. 49,77,250.

Chohtan: The Chohtan block was established as a Shadow block in October 2, 1959 when the scheme of democratic decentralization came into being. The nearest railway station is Barmer, 31 miles away. The block and panchayat samiti covers an area of 1,271 square miles and a population of 87,600 in 111 villages.

As the block lies in an arid zone, there is little scope for agricultural improvement. However, 300 acres of land had been brought under irrigation and a sum of about Rs. 10,000 spent on irrigation schemes (including loans) up to the end of the Second Plan. Four seed drills had also been distributed, 11 compost pits dug, 3,000 maunds of improved *hajra* seed distributed and 500 acres of land brought under *kana bandi*. About 2,000 shady trees were also planted. Loans totalling Rs. 47,850 were distributed for the purchase of oxen to 175 agriculturists.

Under the water supply scheme, a sum of Rs. 61,350 had been spent, benefitting 40 villages.

Progress was made in the field of co-operation also. At the end of the Second Plan period there were 23 agricultural multi-purpose societies, three village service societies, five sheep-breeding societies, three weavers' co-operative societies, a leather dyers' co-operative and a co-operative godown with a membership of 1,671. A sum of more than Rs. 1 lakh had been advanced in loans to these societies by the end of 1960-61.

In the field of education, 21 new primary schools, a middle school and a higher secondary school had been opened. Under the social welfare programme Rs. 500 had been distributed by way of scholarships to students belonging to the Scheduled Castes; a total of Rs. 9,000 was given to Bhils and Meghwals as subsidies for buying bulls.

Baitu: The Baitu block also was established on October 2, 1959 in a part of Barmer tehsil and is still in the Shadow stage. Baitu is a station on the Jodhpur-Barmer-Munabao line and is also accessible by road. The total area of the panchayat samiti is 1,312 square miles and it covers 53,901 persons in 78 villages. Under the animal husbandry improvement programme, 72 animals had been castrated by the end of 1960-61 and 830 treated for various ailments. In the field of social welfare and public health, four drinking water wells had been repaired, five schools started and a new school building constructed, 21 social education centres had been opened and two clubs organized. In the sphere of co-operation, 20 service co-operatives, an industrial co-operative and a co-operative farming society had been established. A co-operative store had also been opened.

Barmer: The Barmer Shadow block was sanctioned on October 2, 1959 and was converted into a Pre-extension block on May 1, 1960. It covers an area of 1,411 square miles and a population of 56,836 in 139 villages. In the sphere of agriculture and irrigation, five wells had been constructed by the end of 1960-61, three *tankas* built, 10 wells deepened, *kana-bandhi* completed on 12,170 acres of land, 20,250 *khejra* trees planted, 7,000 acres treated against the rat menace, 400 maunds of improved seed distributed, and Rs. 2 lakh distributed as short-term loans through co-operatives. For animal husbandry improvement, 1,281 animals had been castrated, 4,591 treated and 1,500 vaccinated. Loans worth Rs. 26,000 had been granted to cattle breeding farms and Rs. 16,000 to sheep breeding farms. Under social welfare and similar programmes, a total of Rs. 4,356 had been given to persons belonging to the backward classes as loans for bulls, wells and education, 15 new schools had been opened, 21 adult education centres established and 20 youth clubs organized.

Sindhari: The Sindhari block also was established on October 2, 1959 and, like Baitu, covers a part of Barmer tehsil. Sindhari lies on the road from Barmer to Balotra and is 32 miles

from the latter railway station. By the end of 1960-61, 50 manuds of wheat seed had been distributed, 16 compost pits dug, nine iron ploughs, a seed driller and 18 chaff-cutters distributed and 10 agricultural demonstrations carried out. An additional 100 acres of land had been brought under irrigation and *kana-bandi* completed over 700 acres. For animal husbandry improvement, a cattle breeding farm and three sheep breeding farms had been opened and about 40,000 animals vaccinated. Under the health, sanitation and social welfare programme, seven drinking water wells had been constructed, five old wells renovated, three new schools started and eight school buildings constructed. A total of 29 social education centres and three clubs had been opened. In the field of co-operation, 20 multi-purpose and service co-operatives and three industrial co-operatives had been established.

Planning

During the first Plan period, development activities were undertaken in all spheres, but in the preliminary stage progress was slow due to shortage of funds. Moreover, district offices to handle these schemes only began to be established towards the end of the Plan period. Some of the activities undertaken were as follows:

The Public Works Department constructed half a mile of bitumenized road at a cost of Rs. 16,700 and 202 miles of gravel road at a cost of Rs. 9,28,428.

The Education Department opened a multi-purpose school, two high schools, seven middle schools, 103 primary schools and a separate school for girls.

The Medical and Health Department opened a dispensary and a medical aid post.

The Social Welfare Department opened a number of craft and social education centres and granted subsidies and scholarships to members of the backward classes.

Among miscellaneous works, the Barmer municipal committee was granted a loan of Rs. 4½ lakhs for expansion of the power house and work was started on a 20-mile forest belt from Gadra Road to Girab.

Second Plan: Progress in the Second Five Year Plan was much more marked as by 1956-57 the necessary development

machinery had been established in the district and larger funds were available. The table below shows Plan expenditure in the district under various heads during the first three years:

Sector	(Rs. in lakhs)		
	1956-57	1957-58	1958-59
Agriculture	..	1.08	2.44
Consolidation of holdings	..	..	..
Animal Husbandry	0.04	0.10	0.20
Forest and Soil conservation	..	..	0.18
Irrigation	..	..	..
Co-operation	0.01	0.21	0.58
Community Development and N.E.S.	2.42	4.44	5.34
Industries	0.40	0.79	1.52
Roads	1.41	0.26	5.33
Education	0.19	1.49	5.17
Medical and Public Health	..	0.34	0.09
Ayurveda	0.05	0.10	0.21
Water Supply	1.39	0.08	0.78
Housing	..	..	0.58
Labour	..	..	..
Social Welfare	0.07	0.07	0.03
Publicity	..	..	0.04
Statistics	..	..	0.02
TOTAL ..	5.98	8.96	22.51

The first year of the Plan period was spent largely on work of an organizational nature and, apart from the spheres of community development, road-building and water supply, progress was rather slow, the total expenditure on Plan schemes being only Rs. 5.98 lakhs. In the succeeding years, expenditure was stepped up considerably with the result that the total at the end of three years was Rs. 37.45 lakhs, or approximately 0.7 per cent of the total Plan expenditure in the whole of Rajasthan during the same period. Of this amount, Rs. 12.20 lakhs or about one-third was spent on Community Development and the National Extension Service, followed by Communications (Rs. 7 lakhs), Education (Rs. 6.85 lakhs) and Agriculture and allied subjects (Rs. 4.04 lakhs). The total expenditure on Industries was Rs. 2.7 lakhs, on water supply Rs. 2.25 lakhs and Rs. 0.80 were spent on the co-operative movement. Medical and Public Health activities, including Ayurveda, claimed Rs. 0.79 lakhs. Physical targets were exceeded in several sectors, notably in the case of Agriculture and Co-operation.

Some of the detailed achievements in the sphere of Agriculture by the end of the Plan period were as follows:

In the field of minor irrigation, 88 wells were constructed and 36 pumping sets and 44 persian wheels installed. The respective targets were 20 wells, 12 pumping sets and 26 persian wheels.

The targets and achievements as regards the distribution of fertilizers were as follows:—

					(Figures in tons)	
					Distribution	Target
Ammonium Sulphate	..	..	..	..	23	15
Urea	..	..	..	..	13	8
Ammonium Sulphate Nitrate	..	..	..	..	15	7
C. A. N.	..	..	..	..	9	7

The quantities of improved seeds distributed were as follows:

					(Maunds)	
Wheat	..	..	..	..	8,647	
Jowar	..	..	..	..	150	
Bajra	..	..	..	..	4,694	

A seed multiplication farm was started at Samdari and two seed stores were set up. Soil conservation activities were carried out on 1,547 acres of land and 1,180 acres were treated with rat poison. Forty-one improved agricultural implements were distributed.

The following year-wise statement of targets and achievements of the Co-operative Department also shows that progress was more than satisfactory in that sphere:

1957-58		Target	Achievement
Organization of small size agricultural credit societies	..	30	42
1958-59			
Marketing societies	..	1	8
Large size societies	..	1	1
Central Co-operative Bank	..	1	1
Medium size co-operatives	..	2	3
Small size agricultural credit societies	..	40	41

1958-60			
Revitalization of small size agricultural societies	..	30	30
Organization of agricultural societies	..	65	79
Marketing societies	..	1	1
Joint farming societies	..	2	2
Construction of godowns for small size agricultural societies	..	4	4
Godowns for marketing societies	..	2	2

1960-61			
Revitalization of small size societies	..	35	35
Organization of agricultural credit societies	..	45	40
Marketing societies	..	1	1
Land mortgage bank	..	1	1
Rural godowns	..	2	..
Godowns for marketing societies	..	1	..

A co-operative housing society was established with a membership of 44. The society was granted a loan of Rs. 1,44,000 in 1958-59 and a further Rs. 50,000 during 1959-60.

The Public Works Department completed 38 ½ miles of the gravelled State Highway from Barmer to Chhitalwana (71 miles) by January, 1961 as against the total Plan target of 34 ½ miles. In the case of gravel road from Chawa to Phalsund also, 33 ½ miles were completed by January, 1961 against a target of 25 miles. By the same date, 20 miles of the 71 mile road from Barmer to Balotra had been bitumenized.

Important Plan activities of the other Departments may be summarized as follows:

The Education Department opened two higher secondary schools, 15 middle schools, 211 primary schools, 45 primary schools were converted into Basic schools and opened a Basic S. T. C. School.

The Ayurvedic Department opened three dispensaries.

The Veterinary and Animal Husbandry Department opened a dispensary at Chohtan and wool grading centres at Shiv, Barmer and Balotra.

The Social Welfare Department continued its subsidy and scholarship programme and gave subsidies totalling Rs. 12,600 to 36 Gadia Lohar families and Rs. 6,500 to Bhils for house construction. Scholarships worth Rs. 4,145 were given and a sum of Rs. 3,100 was spent for providing light and water facilities for the Scheduled Castes.

In order to improve rural water supply, a sum of Rs. 4,03,351 was spent on the construction of 107 drinking water wells, repairs to 222 wells and construction of 22 *tankas* during the years 1956-57 and 1957-58. The scheme was continued in 1958-59 and 39 works costing Rs. 1,15,954 were completed. During 1959-60, a sum of Rs. 2,60,000 was sanctioned for 23 works. A pipe-line water supply scheme for Pachpadra costing Rs. 5 lakhs was in progress at the end of the Plan period.

The Low Income Group housing scheme was initiated in the district in 1958-59; by the end of 1960-61, 11 persons had been granted loans totalling Rs. 46,400.

CHAPTER IX

GENERAL ADMINISTRATION

Historical Background

Before the formation of Rajasthan, this area roughly comprised four parganas of Jodhpur State—Barmer, Shiv, Pachpadra and Siwana. As each pargana was governed by an official with the designation of *Hakim*, they were also known as *hakumats*.

The *Hakims* were both Revenue and Judicial Officers. They were directly responsible to the Darbar and had no dealings with each other. They could try civil suits not exceeding Rs. 500/- (with the permission of the Civil Court up to Rs. 1,000/-) in value and in criminal cases could impose sentences of imprisonment up to four months, fines up to Rs. 200/- and whipping not exceeding six stripes. The *Mahakma Khas* (Council of Ministers) at Jodhpur exercised full powers of revision and control over all the subordinate courts and was the highest judicial tribunal in the State. It was the final court of appeal in both civil and criminal cases, though references were occasionally made to, or called for by the Darbar Office.

In January, 1949 when the present Barmer district was formed and placed in the charge of a Deputy Commissioner, the *Hakims* were redesignated Tehsildars. Later, on March 20, 1949 Jodhpur State was merged into Rajasthan and the designation of Deputy Commissioner was changed to that of Collector and District Magistrate.

Up to the end of 1960-61, the administrative authority of the district was the Divisional Commissioner, whose headquarters were at Jodhpur. Since then the post of Commissioner has been abolished, with the result that the responsibility of the Collector has increased.

The Collector is, in addition to his revenue duties, also District Magistrate and District Development Officer. Since the start of the First Plan period, development activities have taken up an increasing amount of his time and although, in October, 1959 a new system of local self-government was introduced in order to give the people an

opportunity to be intimately associated with development work, the Collector periodically attends meetings of the panchayat samities and all meetings of the Zila Parishad, so that co-ordination between the local bodies and the executive officers is assured.

Thus the Collector remains an important figure in the sphere of development work. At the same time, the collection of revenue continues to occupy a great deal of his time. He is not only to supervise the working of the Revenue Officers but is also a Court of Appeal. As a District Magistrate he is responsible for law and order along with the Superintendent of Police. Besides this, the Collector has wide powers under several Acts, which enable him to keep a firm grip on the administration of the district.

Directly subordinate to the Collector in the vertical line of administration are the Sub-Divisional Officers stationed at Barmer and Balotra. The Sub-Division of Barmer comprises the tehsils of Barmer, Shiv and Chohtan and Balotra Sub-Division the tehsils of Pachpadra and Siwana. The tehsil of Chohtan was created only in 1954 and comprises some areas of the former Barmer tehsil and the police station areas of Sedwa and Bhakasar, which were formerly part of Jalore District. Each Sub-Divisional Officer in his own jurisdiction has revenue, magisterial and executive powers. These Officers work in close consultation with the Collector and relieve his burden to a great extent.

Under the Sub-Divisional Officers are the five Tehsildars, who are assisted by Naib-Tehsildars. Each of these Officers has similar functions in his area. Each tehsil is sub-divided into *girdawar* circles, each in the charge of an official called a *Kamungo* or Revenue Inspector. The *girdawar* circles are further sub-divided into *patwar halkas*, this being the basic unit of administration. The Patwari maintains the land registers and is also required to report any untoward happening in his area. The actual collection of land revenue is at present done through commission agents known as *chaudharies*. A fuller description of this pattern is found in the chapter on Revenue Administration.

In former times the emphasis in district administration was on the collection of revenue and maintenance of law and order. Though these are still important, the main stress has shifted to development work and thus the Welfare Departments are now playing

a very important role in the district administration. While the Collector, S.D.O., Tehsildar, etc., lie in the vertical line of administration, what may be called the horizontal line of administration comprises the Collector and his fellow District Officers in charge of Education, Agriculture, Irrigation, Industries, Public Works, etc. A District Level Officers' meeting is held about once a month, at which policies and work programmes are discussed and plans drawn up for future action. The Collector presides at these meetings and discusses with the District Officers the programmes of the panchayat samitis.

Of special importance in the administration is the police hierarchy, which is described in detail in another chapter. The Superintendent of Police and the Collector work in close consultation in order to maintain law and order. As far as judicial matters are concerned, the highest authority in the district is the District and Sessions Judge, who exercises supervision over the work of all courts.

The following is a list of district officers of the Rajasthan Government not included in the hierarchical line of administration:—

- (1) District and Sessions Judge
- (2) Superintendent of Police
- (3) Commanding Officer, R.A.C.
- (4) Deputy Collector, Jagir
- (5) Assistant Engineer, P.W.D.
- (6) Inspector of Schools
- (7) District Social Education Officer
- (8) District Agriculture Officer
- (9) District Industries Officer
- (10) Assistant Registrar, Co-operative Societies
- (11) Assistant Commissioner, Excise and Taxation
- (12) Public Relations Officer
- (13) Treasury Officer
- (14) Medical Officer, Malaria Eradication Programme
- (15) District Animal Husbandry Officer
- (16) Welfare Inspector

Staffing Pattern

The work programmes of these district heads have been discussed in the relevant chapters. It would not, however, be out of place here to say something regarding the set up of some of the bigger offices.

The work of the Collectorate is divided among the following 10 Sections—Nazarat, Development, Judicial, D.R.A. (District Revenue Accountant), Revenue, Records, Panchayats, Election, Famine and Supplies. The clerical staff consists of an Office Superintendent, a Stenographer, 12 Upper Division Clerks and 18 Lower Division Clerks plus an Inspector in the Supplies Section.

There is a separate office of a Deputy Collector (Jagir), which has four U.D.Cs., five L.D.Cs., two Accounts Clerks and two Auditors. A considerable amount of work has to be done in the district in connection with the implementation of the Resumption of Jagirs Act, hence the need for a number of clerks.

The Sub-Divisional Officers stationed at Barmer and Balotra each have office staff consisting of a Reader and three L. D. Cs.

The District Industries Office has three sections; the Direction and Superintendence Section is manned by one U. D. C. and one L. D. C., the Inspection and Stamping (Handloom) Section by an Inspector and an L. D. C. and the Designing Extension Centre, Barmer, has a Designer, a Printing and Dyeing Master, a Block Maker, a Printing Assistant, a Dyeing Assistant and an L. D. C.-cum-Storekeeper.

The Treasury Office, Barmer, has a sanctioned strength of an Accountant, two Accounts clerks, three U.D.Cs. and three L.D.Cs.

The Office of the Superintendent of Police has three branches with a Head Clerk in charge. The Accounts Branch has an Accounts clerk of the grade of U.D.C. and a Bill Clerk, a Cashier (Office) and a Cashier (Lines), all of the grade of L.D.C. The Force Branch is staffed by a Force Clerk (U.D.C.), and the General Branch has a Correspondence Clerk (U.D.C.), and an Assistant Correspondence Clerk, a Records Clerk, a Typist, a Receipt Clerk and a Despatch Clerk, all of the grade of L.D.C. There is also one post of L.D.C. as a leave reserve.

The Commandant, 2nd. Bn., R.A.C. has in his office ministerial staff consisting of an Accountant, three U.D.Cs. and four L.D.Cs. The actual strength of the Unit is described elsewhere.

The Inspector of Schools has a Deputy Inspector, one U.D.C. and one L.D.C. In addition, six L.D.Cs. of the government middle schools are utilized in the office. The District Social Education Officer has an establishment consisting of a Deputy Education Officer and two L.D.Cs.

The Assistant Commissioner, Excise and Taxation, has a staff consisting of an Assistant Sales Tax Officer, one Sales Tax Inspector and three Excise Inspectors, three U.D.Cs., 11 L.D.Cs. and two Moharrirs.

The Office of the Assistant Registrar, Co-operatives, has jurisdiction also over the district of Jaisalmer. The staff, besides the Assistant Registrar, consists of eight Executive Inspectors, 10 Audit Inspectors, a Technical Assistant, two Upper Division Clerks and three Lower Division Clerks. The technical staff are posted with the various panchayat samities.

A District Agricultural Officer was posted at Barmer soon after the merger, but later the office was shifted to Jalore with jurisdiction over both districts. With the stepping up of agricultural operations under the second Plan, a separate office was reopened in Barmer in June, 1957. Four Agriculture Extension Officers were posted in the development blocks of Siwana, Pachpadra, Sindhari and Gura Mallani, respectively. These postings continue, and since the formation of the panchayat samities, one Fieldman has been posted with each samiti to promote agriculture on scientific lines. Siwana also has a Compost Inspector. The District Agriculture Officer, who is posted at Barmer, has an office staff consisting of an Agriculture Assistant, two Fieldmen (one for cotton) and two Plant Protection Mukaddams, besides two U.D.Cs. and an L.D.C.

The staff of the office of the District Animal Husbandry Officer consists of a U.D.C. and an L.D.C. The veterinary hospitals at Barmer, Balotra and Siwana each have a Veterinary Assistant Surgeon besides compounders, stockmen and dressers; dispensaries at Chohtan and Shiv are supervised by Animal Husbandry Extension Officers. The Sheep and Wool Development Scheme of the Indian Council of Agricultural Research is supervised by an official with

the designation of Superintendent. His office came into existence on May 30, 1959. /

The above descriptions of the staffing patterns in various offices do not take account of auxiliary categories of staff, such as Class IV employees.

CHAPTER X

REVENUE ADMINISTRATION

LAND REVENUE

Historical Aspect

In the early period, when the Rashtrakutas, Pratiharas, Panwars and Chalukyas ruled over this tract, land revenue was charged according to the Dharma Shastras, the rates generally varying from one-sixth to one-twelfth of the produce.

In mediaeval times, largely as a result of frequent wars and foreign invasions, a feudal system came into existence with the relatives and close associates of the Chief ruler being established as *jagirdars*. Thus the Jasol, Sindhari, Barmer and Chohtan areas became *jagirs* for the descendants of Mallinath. Other *jagir* areas were Shiv, Siwana, Gura Mallani and Nagar. In the Ain-i-Akbari, Mhewa (Sindhari and Jasol) is mentioned as a Mahal of Jodhpur Sarkar with a revenue of 9,60,000 dams. Similarly, Siwana was a Mahal with a revenue of 12 lakh dams. The *jagirdars* of Mallani acknowledged the sovereignty of the Marwar Darbar, but, as descendants of the conqueror of Marwar regarded themselves in a special position. In practice, the Jodhpur ruler had little control over them and even the *faujbal* or military tribute, which in theory they were obliged to pay, was seldom realized. Marwar came under British protection in 1818 and some years later (1836) it was found necessary to post a British Superintendent at Barmer to keep the *jagirdars* in line. It was not, however, till 1849 that the area was firmly cemented to Marwar State.

In both the *jagir* and *khalsa* areas, land revenue was till the closing years of the 19th century, usually paid in kind. There were several methods by which the share of the produce was realized. The most prevalent system was that of *latai* or *batai*, under which the produce was collected near the village and measured or weighed. The share taken by the landlord (or the State) varied from one-fifth to one-half in the case of dry crops and from one-sixth to one-third

in the case of wet crops; it was greater for dry crops because they cost less to cultivate and yielded better and more valuable fodder, of which no share was ordinarily claimed. Allied to this system was that of *kanta*, where the share was calculated by guess and not by actual weighing; a variation of this was *kankar kanta*, under which the produce was estimated while the crops were still standing. Other systems were: *mukatta*, a fixed rate per field, realized in cash; *dori*, a fixed rate per measured bigha, paid in cash or kind, and *ghugri*, a fixed quantity of grain per well or per field, or a quantity equal in amount to the seed sown (*bij ghugi*).

First Settlement

A village boundary survey and a cadastral survey of the *khalsa* villages in the state was carried out for the first time under the supervision of the Assistant Resident, Major Loch, between 1883 and 1893. Village maps and records of rights were prepared, soils classified and crop experiments made. Settlement operations were conducted from 1894 to 1896. For assessment purposes, the areas dealt with were divided into two groups, namely (a) secure or nearly so, i.e., irrigated by wells or tanks, where the yearly out-turn varied little and remissions of revenue were necessary only in seasons of dire famine, and (b) insecure or totally dependent on the rainfall. In the former case the assessment was fixed and in the latter it fluctuated in proportion to the actual out-turn. The standard by which circle rates were calculated was the amount formerly received by the Darbar both in cash and kind, including cesses, from a particular type of land. The gross yield was estimated from the results of crop experiments, supplemented by local enquiries, and thus it was possible to deduce the average rates that should be applied in assessing individual holdings, *chahi* (irrigated) areas were classed according to their relative values and *barani* (unirrigated) areas according to the nature of the soil.

The rates per acre for *chahi* land varied from Rs. 2-5-6 to Rs. 10 (average Rs. 2-10-6) and those for *barani* land from $1\frac{1}{4}$ to $12\frac{1}{2}$ annas (average $4\frac{1}{2}$ annas). Only two cesses were levied, namely *malba* (for village expenses) and *chaudharbab* (for the remuneration of the Chaudharis); these nowhere exceeded $4\frac{1}{2}$ per cent of the revenue demand and in most cases amounted to much less.

This first regular Settlement of *khalsa* land in Marwar was carried out in 566 villages; there is, however, no clear record as to how many of these fell within the confines of the present Barmer

district. When the Revised Settlement was conducted in the 1920, there were only 16 *khalsa* villages out of a total of 104 in Pachpadra pargana, 15 out of 88 in Siwana, only one out of 502 in Mallani and eight out of 74 in Shiv pargana. These figures, for reasons explained later, differed from those during the original Settlement, but they do indicate clearly the overwhelming preponderance of the *non-khalsa* villages. In *khalsa* villages not covered by the settlement operations, and in *jagir* areas, land revenue continued to be collected on the *latai* system or according to a method known as *ank-bandi*, where an estimate of the probable out-turn was made a lump sum payment (in cash) fixed for the year.

Second Settlement

The original Settlement was to have lasted only for 10 years, after which it was proposed to set right defects that had appeared in its working. However, it was not till 1918 that a decision was taken to order a re-settlement of *khalsa* villages and the operations themselves began only in 1921 and lasted till 1926.

The Second Settlement was conducted by Mr. D. L. Drake Brockman, Settlement Officer and Revenue Member of the Jodhpur Government. Two of his innovations are noteworthy; he drew up a set of rules defining the rights and liabilities of *bapidars* (long-term tenants) and he based the new rent rates on a division of land into *mustaqil* (permanent) and *ghair mustaqil* (non-permanent) areas. *Mustaqil* land was that which was capable of continuous and profitable cultivation and would therefore bear reasonable rent. The rates for *ghair mustaqil* land were much lower and fixed so that, even if taken on long-term lease, the tenant would feel no hardship if he were to cultivate it as little as he liked in unfavourable seasons.

The soils were classified as *chahi* (well irrigated), *nehri* (canal or channel irrigated), *sewaj* (loam or clay), *kachhar* (alluvium) and *barani*; the division of these into the permanent and non-permanent categories depended to some extent on their relative values. In the first was included all first and second class *jaos* (areas served by wells), the best *nehri* lands, superior *kachhar* lands, the most favoured *sewaj* lands in irrigated tracts and exceptionally well situated *barani* lands. In the non-permanent category was included all inferior varieties of irrigated or irrigable land and more than 90 per cent of *barani* land.

The term of the Second Settlement expired in 1935. Revision of the rent rates was taken up in 1938-39 and completed in 1945-46.

In general, the principles introduced in the 1921-26 Settlement were followed.

System of Collection

The unit of revenue administration was the village or group of villages under a hawaldar. In the whole state there were 251 such units grouped under 18 *daroghas* or *girdawars*. The work of *girdawari* and preparation of other village records was done by the hawaldar, who was directly responsible to the *darogha*. The collection of revenue was effected through the agency of *amins* controlled by the Hakims or Pargana Officers. At the state headquarters, the Land Revenue Department was under a Superintendent, assisted by five Assistant Superintendents, each of the latter in charge of a group of parganas.

Jagir Lands

As stated earlier, *khalsa* lands occupied a very small percentage of the total area of the district. Other land was held according to a variety of tenures, the chief ones being as follows:

Bhumichara, a tenure on which Rajputs whose ancestors held land prior to the Rathor conquest enjoyed their estates. These persons (in this district mainly the Thakurs of Mallani) had merely to pay a small sum of money to the Darbar as *faujbal* (military tribute). Treason against the State or the commission of a heinous crime along could justify the resumption of an estate held on this tenure. The issue of a *patta* on succession was not necessary.

The *faujbal* paid to the Darbar in individual cases was as follows:—

Jasol	Rs. 2,100/-
Barmer	Rs. 1,100/-
Sindhari	Rs. 1,800/-
Nagar	Rs. 302/-
Gura Mallani	Rs. 2,530/-
Chohtan	Rs. 218/-
Setrau	Rs. 132/-
Bisala	Rs. 500/-
Sihani	Rs. 200/-
Mungeria	Rs. 50/-

Bhum land was held by *Bhumias* who had to perform certain duties such as protecting the villages, chasing criminals, providing an escort for carriers of government funds and protecting officials

on tour. Some of them paid a quit rent called *bhum bab*. Grants of *Bhum* land were made only by the Darbar and could be conferred even in villages held by *jagirdars*.

Jivka was a grant to younger sons of a prince or thakur for their maintenance. After three generations, the holder had to pay a cess (*rekh*) and succession fee and to supply militia like the ordinary *jagirdar*. On the dying out of the lineal descendants of the original grantee, the land reverted to the family of the donor.

If the Darbar was so minded, on the confiscation of a village it would permit the *jagirdar* to retain a few fields just to save him from becoming homeless. This grant was called *Juna jagir*.

Pasayat was the name of the tenure on which land was given out by *jagirdars* in lieu of payment for services. No rent was charged from these *Pasaitedars*, but when the holder ceased to render the service required, the land was resumed.

Inam was a rent-free grant for services rendered to the State. It lapsed on the failure of the lineal line of the original grantee.

In the *Dumba* tenure, land was made over and brought under cultivation on payment of a permanently fixed rent. No service was required.

In the ordinary *Jagir* tenure the holder had to pay a yearly military cess called *rekh*, which was supposed to be 8 per cent of the gross rental value of the land, and had to supply one horseman for every thousand rupees of revenue, one camel sowar for every 750 rupees or one foot-soldier for every 500 rupees. Towards the end of princely rule, in most places military service (*chakri*) was commuted for cash payment at the rate of Rs. 204 per horseman and Rs. 144 for a camel sowar and Rs. 84/- for a footman. On succession, the holder had to pay *hukumnama* at the rate of 75 per cent of the annual income if the fee was to be paid in cash or to make over his village for one year to *khalsa* for the recovery of the fee. Only when the succession fee had been paid was the *patta* issued. Disobedience to a lawful summons or order involving sequestration and the commission of a grave political offence was punished by confiscation. On the extinction of the male line of the original grantee, the *jagir* escheated to *khalsa*. Charitable grants to

Brahmans, Charans, etc., were called *Sasan* and were held rent-free. When, however, the grant was for a portion of a village or for a certain well or field, it was known as *Doli*. On the extinction of the line of the original grantee, such land reverted to the State.

In the case of *Jaigr* and *Jivka* estates, succession was governed by primogeniture whereas in the other tenures the rule of gavelkind, i.e., equal partition among surviving heirs, was observed. No *jagir* land could be sold and though mortgages did take place, they could not be fore-closed.

The total area of land held under grant varied considerably from decade to decade due to the process of escheat and the bestowal of fresh grants. However, it may be noted that land held according to the *Bhumichara* tenure and also *Sasan* grants never lapsed to the Darbar. In fact, the Jodhpur rulers, once their kingdom had been established never bestowed *Bhumichara* rights, this tenure being a survival of former days.

Jagirdars of distinction were styled *Tazimi Sardars*. Their number in the last days of Marwar state was 144, of whom about a dozen were in this area. The *Tazimi Sardars* were divided into three classes according to the degree of recognition which they were entitled to receive from the Maharaja in Darbar; a total of 86 belonged to the first class, 45 to the second and 13 to the third. In the first class were 12 nobles, all Rathors, who were held superior to the rest and called *Saravats*.

The survey and settlement of *jagir* land was left entirely to the landholders themselves. Few took the trouble to have their lands surveyed and a scientific system of rent rates drawn up. As regards the collection of revenue, the landholders were free to take what percentage of the crops they wished, though in practice the share taken in contiguous areas varied little. At the time of the passing of the Marwar Land Revenue Act in 1949, it was found that the landlord's share under the *laxai* or *kanta* system generally ranged from 1/5 to 2/7 of the produce on *barani* land while the rate for *mukatta* (cash rent) was from 4 to 12 annas per bigha. On *chahi* land the share varied from 1/8 to 1/4 of the produce, exclusive of cesses. In the new Act it was laid down that the rent rates should not be more than one-third in the case of *barani* land and one-quarter in the case of irrigated land. Under the Rajasthan Land Revenue Act the share has been fixed at not more than one-sixth.

Apart from rent, the *jagirdars* derived income from the sale of natural produce such as fodder grasses. They were also permitted to sell non-agricultural lands for *patta-imarti*. Cesses also brought them a fair income, but under Section 53 of the Marwar Land Revenue Act (1949) all but four cesses were abolished. The four allowed to be recovered were:—

Ghasmari. A grazing cess levied on all domestic animals except cows.

Malba. Recovered in cash or kind for village expenses.

Kharda. Levied on houses; and

Mapa. Levied on the sale of goods taken to other villages.

PRESENT SETTLEMENT

At the time of the formation of Rajasthan, there had been three Settlements in the *khalsa* areas of the former Jodhpur State. In the areas under *jagirdars* and other landlords, no proper settlement had ever been conducted and the lands had not even been scientifically surveyed since the time of Major Loch. As *khalsa* land constituted but a tiny fraction of the entire area, and in view of the decision to abolish landlordism, it was decided by the Government of Rajasthan in 1951 to carry out a Settlement in the *tehsils* comprising this district. Accordingly, a cadastral survey was undertaken in 1952.

The Settlement was undertaken roughly *tehsil*-wise but Barmer *tehsil* was sub-divided into Barmer East and Barmer West, the former including some villages of Pachpadra *tehsil* and the latter a part of Chohtan *tehsil*. Settlement of the remaining part of Chohtan *tehsil* was conducted along with that of 10 villages of Sanchore *tehsil* of Jalore District. This overlapping was due to the fact that some of the *tehsil* boundaries as well as the district boundary with Jalore underwent changes after the scheme had been drawn up.

The area taken up separately for settlement in Pachpadra covered 104 villages, of which 89 were *jagir* villages, 12 *khalsa* and three *mushtarka* (comprising both *jagir* and *khalsa* land). The *khalsa* villages had already been settled in 1941-42 and it was decided to leave them out of the operations. In the others, the main tenures were *Jagir* (now known as Scheduled) and *Sasan* (re-termed Listed). For assessment purposes, three circles were formed—Plain I, Plain II and sandy. The rates evolved were as follows: *Chahi*

(categories I to IV) Rs. 4/4 for the best land to Rs. 1/12; *Sewaj* 11 annas to 6 annas; and *Barani* I to III 8 annas to 2 annas. The sanctioned term of the Settlement was 20 years from S. 2011 (1954-55).

The Settlement of Barmer East covered 269 villages in Barmer tehsil and 53 in Pachpadra. Of these, 287 villages were *Jagir* villages and 35 under *Sasan* tenure. There was not a single *khalsa* village in the area and thus this was the first regular Settlement. Two circle were evolved—Sandy I and Sandy II—and the rates were as follows: *Chahi* land Rs. 3 to Rs. 1/2; *Rel* 10 annas to 6 annas; *Sewaj* 5 annas to 4 annas, and *Barani* 3½ annas to 9 pies. As in the case of Pachpadra, the term of the Settlement was 20 years from S. 2011 (1954-55).

Barmer West comprised 183 villages in Barmer and Chohtan tehsils. Only one village—*Netriyar*—was *khalsa*, 175 being *jagir* villages and seven *Sasan*. For assessment purposes there were two circles—*tiba* (an area of high sand dunes) and *tal-tiba* (also sandy, but less undulating). There being scarcely any irrigation in the area, there was only one soil category—*Barani*—the rates for which varied from 2 annas to 6 pies according to quality. Here also the term of the Settlement was 20 years from 1954-55.

The Chohtan Settlement covered 78 villages of Chohtan tehsil and 10 of Sanchoore tehsil (Jalore District). All the villages were under *Bhomichara* or *Sasan* tenure. As in Barmer West, the circles formed were *tiba* and *tal-tiba* but, owing to the presence of wells along the banks of the Luni, some land was classified as *Chahi*. The rates were as follows: *Chahi* Rs. 1/12 to 8 annas, and *Barani* 2 annas to 6 pies. The Settlement was for 19 years from S. 2013 (1956-57).

The Shiv Settlement coincided with the tehsil boundaries. Of 74 villages; 50 were under *Bhomichara* tenure, 16 *Sasan*, seven *Khalsa* and one *Mushtarka*. Though the number of villages was small, the area covered was large, the revenue village of Sundra alone covering an area of 519 sq. miles. Two circles were formed for assessment purposes—*tharda* (the sandy table-land of the eastern part of the tehsil) and *tiba* (the sandy west). The rates were as follows: *Chahi* (very scarce) Rs. 3 to Rs. 1/2, *khadeen* (*Sewaj*) 7 annas to 4 annas, and *Barani* 2 annas to 3 pies. The term of the Settlement was 10 years from S. 2014 (1957-58).

In Siwana also the Settlement coincided with the tehsil boundaries. Of 89 villages, 73 were *Jagir* or *Sasan*, 13 *Khalsa* and

three *Mushtarka*. Three circles were formed—plain, sub-montane and sandy—and the rates evolved were as follows: *Chahi* Rs. 4/4 to Rs. 1/12; *Sewaj* Re. 1/-, and *Barani* 8 annas to 4 annas. The term of the Settlement was 21 years from S. 2010 (1953-54).

The highest rates for both *Chahi* and *Barani* land naturally prevail in the more favoured tehsils of Siwana and Pachpadra. The lowest rates are in the sandy western portion of the district. In more than 90 per cent of the district this was the first regular Settlement ever conducted.

System of Collection

Before the formation of Rajasthan, the Department of Land Records of Jodhpur State was part of the Revenue Department, known as Mahakma Hawala. The former system of collection has been described earlier. After the formation of Rajasthan, the Department of Land Revenue was split up into two Departments—the Department of Land Revenue and the Department of Land Records. Later, in 1952, the Department of Land Records was abolished.

The actual collection of land revenue is done by the village Choudhari. He is accompanied by the Patwari, who consults his demand register (*dhal bhanch*) and issues receipts. The Choudhari is entitled to 5 per cent of receipts for performing this function. There is now a proposal to abolish the choudhari or *lambardari* system and entrust the work of collection to the panchayats; experimental action was started in this connection in 1961.

The Patwari maintains the village records of his *halka* and these are examined by Revenue Inspectors. Each Inspector has charge of a circle comprising a number of patwar *halkas*. Above the Circle Inspectors are the Tehsildars and above them the Sub-Divisional Officers. At tehsil headquarters there is an Office Kanungo who looks after the records; the consolidated revenue records of the district are maintained at headquarters by an official called the Sadar Kanungo. The Collector himself is, however, ultimately responsible for their proper maintenance.

REVENUE UNITS

The following statement shows the number of *Girdawar* (Inspection) circles and Patwar *halkas* in the district:

Tehsil	Girdawar Circles	Patwar Halkas
Barmer	9	91

Shiv	2	20
Chohtan	4	39
Siwana	3	29
Pachpadra	4	35
TOTAL ..	22	214

The actual locations are as follows:

Tehsil	Girdawar Circles.
Barmer	1. Barmer 2. Bisala 3. Ramsar 4. Dhorimana 5. Nokhra 6. Gura Mallani 7. Sindhari 8. Baitu 9. Gidan.
Shiv	1. Shiv 2. Gadra Road.
Chohtan	1. Chohtan 2. Binjasar 3. Sedwa 4. Bhakasar.
Siwana	1. Siwana North 2. Siwana South 3. Siwana East.
Pachpadra	1. Pachpadra 2. Jasol 3. Kalyanpur 4. Thob

The patwar *halkas* are as follows:

Inspection Circle.	Patwar Halka
Barmer	Ranigaon Mahabar Hathi Tala Barmer Kapuradi Bhadhka Bhurtiya Shivkar Chawa Rawatsar Bandra
Bisala	Indorai Sihani Derasar Nand Jasai Suracharan Bisala Auti Bhadreshgandher Jalpa
Ramsar	Buthai Gogarai Bhidaka Par Pandhi-ka-Par Chacki Khadin Satarau Ramsar Bhachbar Gangala

Inspection Circle.	Patwar Halka
Dhorimana	Sanawara Bhimthal Arniyali Mithura Khurd Ranasar Kalan Dhorimana Dhudhu Lukhu Udasar Loharwa
Nokhra	Surnu Chimanji Sewan Wala Nokhra Mehlu Kagan Sarli Band Adel Sanaita Hodu
Gura Mallani	Gura Mallani Bahta Nagar Bhidana Ratanpura Bhakarpara Gadheve Kalan Piparali Sada Khudala
Sindhari	Dhankha Sindhari Bhuka Dandali Kamthai Chadaki Dhani Koslu Payal Khurd Juna-Mitlakhada Payal Kalan
Baitu	Nosar Kavas Station Baitu Chimanji Baitu Bhimji Kanod Jhak Bataru Kolu Bhimda Akdra
Gidan	Ratau Kasubala Bhaotau Sawau Padamsingh Gidan Hira-ki-Dhani Khokhkar Sahra Parau Kupaliya Chibi

Inspection Circle.	Patwar Halka
Shiv	Sundra (2 patwaris)
Gadra Road	Jaisinghdhar Gadra Road Bhedusar Girab (2 patwaris) Jankali Harsani Balewa Mungeria Shami-ka-gaon Kotada Gunga Rajdal Arang Undu Niyad Shiv Nimbala
Chohtan	Ramjan-ki-Gafan Pinjrad Chohtan Antiya Netrar Taratara Lilsar Isrol Dharasar Sanau
Binjasar	Kelnor Deisar Mithrau Binjasar Konra Alamsar Bisaranja Dhanau Gohar-ka-talla Bamnor
Sedwa	Sedwa Bhawar Sarla Janpalia Bisasar Gangasara Bamlada Kenkar Bhunia Sobhala
Bhakasar	Bhakasar Bhanwaria Hathala Nawathalla Faglia Panuria Jarfa Bhekari Ogala
Siwana South (Siwana)	Thapsu Golia

Inspection Circle.	Patwar Halka
	Mokalsar Bamseen Devandri Siwana Kusip Meli Jethantari Rakhri Ramniya
Siwana East (Padru)	Padru Mithora Pau Kundal Dhira Dharna Bhagwa Gura Indarena
Siwana North (Samdari)	Samdari Ajit Ranideshipura Majal Kharantia Karmawas Sewali Khandap Rampura
Pachpadra	Pachpadra Mugra Asotra Parlu Umarlai Bhondiawas Kitnod Newai Balora
Kalyanpura	Kalyanpura Dhani Sakhal Kakara's Doli Kalan Asawa Chohana Sarwadi Mandali Koran
Thob	Thob Simiarkiya Bagawas Thumbali Barnawa Patodj Patodj North Kalewa Bedarlai
Jasol	Jasol Tapra Jagsa

Inspection Circle.	Patwar <i>Halka</i>
	Kaluwari Tilwara Mewanagar Chandesara Golsoda Sajiali

Income from Land Revenue

The following statement shows the demand and collection of land revenue in the district in recent years. The increase in the demand is largely due to the abolition of Jagirs:

Year	Demand	Collections	Remissions	Balance.
1954-55	6,57,286	1,36,124	..	5,12,162
1955-56	10,60,688	2,76,489	..	7,84,149
1956-57	14,97,051	7,01,257	..	7,95,794
1957-58	16,30,777	7,40,357	..	8,90,420
1958-59	27,06,891	12,24,319	..	14,82,572
1959-60	29,38,127	17,48,334	..	11,89,793
1960-61	26,73,919	9,17,979	..	17,55,940

LAND REFORMS

Position of Tenants

The land rent charged from tenants both of *khalsa* and *jagir* land has been described earlier. Generally speaking, a tenant of *khalsa* land had greater security of tenure than his counterpart on *jagir* land and, his rent being paid in cash, was less open to harassment by revenue collectors. Tenants of *jagir* land, which covered more than 90 per cent of the entire area, led a very precarious existence. They were always open to exploitation by the jagirdars' agents, had no rights whatsoever and could be summarily ejected; there was no appeal to the Darbar, which was interested in the *jagir* estates only to the extent of ensuring that revenue dues were paid. However, so strong were the feudal traditions in the area that there is no record of any agrarian movements to secure a better deal.

That part of *jagir* land which was cultivated by the landlord himself and his family was known as *khudkasht*. Land was also given

out rent-free as described earlier, to *Pasaitedars* in lieu of service to the landlord and some *jagirdars* also had the right to maintain separate grants for their *Chhutbhais* and *Maji*.

For the rest, land was given out on rent, the rates being fixed in such a way that the landlord would, after paying his dues to the Darbar, have sufficient to maintain himself, his family, relatives and agents. Generally, however, the rates applied by different *jagirdars* in the same locality varied little. In the better agricultural areas, the same families lived as tenants from generation to generation and were only disturbed if they incurred the wrath of the *jagirdar* or his agents. Many of them had sub-tenants. In areas where cultivation was possible only in favourable years, the rates charged were low and land was given out for farming to anyone who would come forward.

In 1949, two important pieces of legislation were brought out in Jodhpur State—The Marwar Land Revenue Act and the Marwar Tenancy Act. The latter for the first time defined the various tenures existing in the area and laid down certain rights of tenants. Tenants were listed as *Khatedars*, *Ghair Khatedars*, *Bapidars*, *Ghair Bapidars* and *Sikmi Kashtkars*. A *Khatedar* was a person who held land from another person or persons and by whom rent was payable on express or implied contract. Every tenant other than a sub-tenant (*Sikmi Kashtkar*), who was not a *Khatedar* was a *Ghair Khatedar*. A person who acquired the right to till unoccupied or waste land was known as a *Bapidar* and one who held land as a tenant from the holder of a survey number was known as a *Sikmi Kashtkar*. Some of the rights of *Khatedars* and *Bapidars* were as under:

The rights of a *Khatedar* or a *Bapidar* were heritable. They could transfer holdings permanently by sale or otherwise to any co-tenant or to a person who, if he survived the tenant, would inherit his rights. No *Khatedar* or *Bapidar* could, however, sub-let the whole or any portion of his holding for a term exceeding three years.

A *Khatedar* was entitled to all grass and natural produce growing on his holding, but was not entitled to sell or otherwise transfer a tree or any timber or to convert the timber of any tree into an article intended for sale or dispose of it to others.

A *Ghair Khatedar* was not permitted to sub-let his holding or any portion thereof for a term exceeding one year. He was entitled to the natural produce and grass of his holding but not entitled to cut any tree or part of a tree. His rights were not heritable.

A sub-tenant who held land from the landlord or a *Khatedar* was not allowed to sub-let the holding.

A person who held land for a limited period or cultivated over from year to year was called a *Ghair Bapidar*. The rights of a *Ghair Bapidar* were heritable in the same manner as those of a *Bapidar* but not transferable and in general the same restrictions were imposed as in the case of *Ghair Khatedars*.

A fuller description of the provisions of these two Acts has been reserved for the Jodhpur District Gazetteer. With the abolition of jagirs and the passing of the Rajasthan Tenancy Act, tenants here now enjoy the same rights as those throughout the State.

Abolition of Jagirs

Landlordism has been abolished with the implementation of the Rajasthan Land Reforms and Resumption of Jagirs Act, 1952. At the time of the passing of the Act there were in the district only 42 khalsa villages out of a total of 778, excluding the areas later acquired from Jalore district, where also the tenures were overwhelmingly jagir.

The details were as follows:

TEHSIL					
Type of village	Barmer	Shiv	Pachpadra	Siwana	Total
Khalsa	1	11	14	16	42
Mushtarka	..	1	3	2	6
Jagir (all types)	502	66	89	73	730

It is not possible to give the actual number of *jagirdars* and other landholders dispossessed because of the operation of the law of gavelkind in numerous cases. However, details of compensation given under the Act are revealing:

Year	Total No. of Rean. med Jagirs	Compensation paid in Rupees			
		Interim Compensation.	Bonds	Cash	Total
1954-55	17	..	..	..	..
1955-56	88	61,530	..	..	61,530
1956-57	92	1,97,879	..	..	1,97,879
1957-58	121	5,26,566	..	..	5,26,566
1958-59	5154	5,86,928	54,750	152.95	6,41,530.95
1959-60	..	5,64,813	2,96,800	683.97	8,62,296.97
Total	5422	19,37,416	3,51,550	830.92	22,89,802.92

Agricultural wages

In former times, landlords made considerable use of casual labour for agricultural operations on family plots, particularly during the busy sowing and harvesting seasons. Wages were rarely paid in cash, it being usual to keep the labourer supplied with sufficient grain to feed himself and his family and also to give him old clothes and some times a rough shelter. Extra rations were supplied at the time of harvest or if more than one family member was employed. In the slack seasons, the labourer drifted to some other employment. The chief classes thus engaged were the *Bhambis* and *Sargaras*.

With the general rise in prices following the outbreak of the Second World War and even earlier in some areas, there was a trend towards payment of part at least of agricultural wages in cash as the labourers found it increasingly difficult to obtain their necessities other than food. The tendency now is to pay wages in cash, supplemented by a little grain at the time of harvest. The rate of payment fluctuates from month to month according to the nature of agricultural operations and also the area. In the less dry areas like Siwana, where the farmers are better off than in the sandy tracts, a field labourer may earn as much as Rs. 2.50 a day in the busy season while his wife gets Rs. 1.50 to Rs. 1.75 and child 75 naye paise to a rupee. Wages are less elsewhere.

At the same time, with the break-up of large estates, fewer field labourers find employment. The Government as a matter of policy is trying to settle them on land. In the 1951 Census, a total of 4051 persons (2084 males and 1967 females) were listed as cultivating labourers, including dependants.

OTHER SOURCES OF REVENUE

Past Sources

In Jodhpur State, government revenue was derived chiefly from five sources, namely (i) salt, including treaty payments, royalty, etc., (ii) customs, (iii) railways, (iv) land revenue, including irrigation fees and (v) tribute from *jagirdars*, succession fees, etc.

The main items of expenditure were the army and police, civil establishment, Public Works Department, palace and household and tribute to the Government of India.

Separate revenue figures for the districts of Jodhpur State are not available.

To Maharaja Takht Singh is due the credit of systematizing the valuation of *rekh* (tribute from the *jagirdars*) and the succession fee and it was in his time (1870) that the Jodhpur portion of Sambhar lake and the Salt marts of Nawa and Gudha were leased to the British Government. In 1879, when Maharaja Jaswant Singh was ruling, four other salt sources (including Pachpadra) were leased in the same way and, shortly afterwards, the Darbar turned its attention to the reorganization of the remaining departments. In 1883 a reformed customs tariff was introduced. The main features were: (i) abolition of some of the transit duties and a thousand and one petty *lags* (imposts), as also the duty on edible grains brought in for consumption; (ii) reduction in duties on the common necessities of life, and (iii) enhancement of those on articles of luxury.

The Land Revenue Department was next taken in hand. The *khalsa* area, which was surveyed between 1883 and 1893 under the superintendence of Major Loch, was settled on the *bighori* system between 1894 and 1896 by Pandit Sukhdeo Prasad. The basis of assessment was the old *batai* collections together with certain cesses, and the equitability of the rates was ensured by checking them with the grain and cash rents and with the average revenue of the preceeding 10 years. The cesses, representing certain percentages on the revenue and formerly numbering 64, were reduced to four only, as described earlier.

Prior to 1885, there was no general treasury in the State; the practice was to spend the revenues in advance, assign actual receipts to a banker of Ajmer and draw on him for expenses from time to time, paying him both interest and discount for these advances. A treasury was, however, established in 1885 and a regular budget system introduced. In 1902 the services of the Auditor of the Jodhpur-Bikaner Railway (a British official) were utilized for auditing and checking the State accounts, and a special office was then started for the purpose. The system of accounts was known as *Mahajani Jama Kharch*; all receipts and disbursements were daily posted in the ledgers, from which entries were duly tabulated under various heads and cash balances drawn up at the close of each day. This system continued till the merger of the State, when a uniform accounts system was introduced throughout Rajasthan.

Present Sources

Besides land revenue, the following are the main sources of revenue in the district:

Excise and Taxation.—Prior to 1950, there was a Department of Customs and Excise, the work of which here was divided into two circles, East and West. Then, following the abolition of internal customs duties and the setting up of a Rajasthan Government Department of Excise and Taxation an office of Assistant Commissioner, Excise and Taxation was set up at Barmer. This office deals not only with State excise but also with sales tax, agricultural income tax and the tax on the retail sale of motor spirit.

Excise duties and sales tax bring in considerable revenue. There are three Excise Inspectors stationed in the district—for the Barmer, Balotra and Siwana Circles, respectively—checking the sale of country liquor, drugs and other exciseable goods. The actual consumption of intoxicants is described in the chapter on Social Welfare. For sales tax there is one inspector working under the Assistant Commissioner, who is Sales Tax Officer for the purpose of the Act. The Deputy Commissioner, Excise and Taxation, posted at Jodhpur is the appellate authority.

Agricultural income tax is imposed on such income in excess of Rs. 6,000. Super-tax is payable on income of Rs. 30,000. In addition, it is laid down that no agricultural income tax is payable by persons owing not more than 60 acres of irrigated land or 180 acres of unirrigated land. This tax is now abolished.

Under the Rajasthan Sales of Motor Spirit Taxation Act (1954) retail dealers have to obtain licences from the Collector of the district. Recovery of tax can be made as if it were arrears of land revenue.

The following statements shows the revenue obtained through the Department of Excise and Taxation in 1955-56 and 1960-61:—

Item	1955-56	1960-61
Excise	15,24,073	4,74,200.18
Sales Tax	4,06,216	5,33,385.82
Other taxes and duties	24,528	2,712.62
Entertainment tax	..	26,926.21
R. P. G. T.	..	1,10,865.27
Agricultural Income-tax	..	1,116.89

Registration Department

Formerly, the Collectors were entrusted with the duties of District Registrars but now this function has passed to the Sub-Divisional Officers stationed at head-quarters. The Collectors are, however, empowered to hear appeals against the orders of Sub-Registrars within their jurisdiction. The tehsildars function as ex-officio Sub-Registrars in their respective tehsils.

The following statement shows the number of documents registered and fees collected in the district in 1960-61:

Office	No. of documents registered	Total Registration Fees (Rs.)
District Registrar Barmer	48	988.50
Sub-Registrar Barmer	458	6,770.50
Sub-Registrar Shiv	11	99.00
Sub-Registrar Chohtan	126	819.50
Sub-Registrar Siwana	312	3,957.00
Sub-Registrar Pachpadra	248	3,409.00
TOTAL	1402	16,043.50

Stamps

Under the Stamps Act, the District Treasury Officers function as Custodians of Stamps for the purpose of storage as well as distribution and sale to the Sub-Treasuries and stamp vendors. Stamp Karkuns work under them.

Supply of stamps (both judicial and non-judicial) is arranged through the Nasik Press by the Superintendent of Stamps for distribution to the divisional treasuries and thereafter to the district treasuries.

At the district treasury, as well as at the sub-treasuries there are stamp vendors appointed by the Collector. This number is as follows:—

Barmer	2	Pachpadra	2
Chohtan	1	Siwana	1
Shiv	1		

On judicial stamps the stamp vendor gets a commission of Rs. 1.56 per cent. For non-judicial stamps the commission is as follows:—

District head quarters	Rs. 3/2/- per cent.
Sub-Divisional head-quarters	Rs. 4/11/- per cent.
Tehsil head quarters and other places	Rs. 6/4/- per cent.

The district figures for the sale of these stamps in 1960-61 are as follows:—

A. Non-judicial stamps	Rs. 48,816.40
Revenue Stamps	Rs. 2,460.50
B. Judicial:	
Court Fees	Rs. 94,284.95
Copying Fees	Rs. 2,564.80

Transport Department

At the district level there is a motor vehicle transport sub-inspector assisted by a transport clerk. The main duty of the sub-inspector is the registration of motor vehicles and the timely realization 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.

Since 1955-56, the income of the Department in the district has been:—

	(Rs.)
1955-56	41,561.12
1956-57	59,625.92
1957-58	73,949.19
1958-59	91,020.55
1959-60	1,02,397.55
1960-61	1,15,875.18

CHAPTER XI

LAW, ORDER AND JUSTICE

Incidence of Crime

The following statement shows the incidence of some of the more important types of crime in the district during recent years:—

Crime	1956	1958	1960
Total cognizable offences (I.P.C.)	319	444	361
Rioting	8	16	10
Murder	21	14	5
Kidnapping & abduction	11	8	4
Rape	3	2	4
Dacoity	2	3	5
Robbery	15	33	19
Theft and house-breaking	142	228	160
Cheating	3	4	6

These figures, which are indicative of the major types of crime committed in the district, reveal that the most common offences are theft and house-breaking. This may be attributed, firstly, to the general poverty of the desert people and also in large measure to the fact that it is a border district and cattle lifting is very common. Allied offences such as robbery and dacoity are occasionally reported and cause much concern to the local administration in the border areas as these law-breakers when pursued by the police very often cross the border. Murders, too, are comparatively rare. Smuggling figures are not included here and in any case would not reveal the full extent of the problem as the border with Pakistan is long and many cases inevitably escape detection. There is reason to believe, however, that smuggling across the border has considerably decreased in recent years as a result of more effective patrolling. The excise authorities registered 16 cases of opium smuggling in 1960.

Historical Background

The ferment in Rajasthan during the break-up of the Mughal Empire and the rise of the Mahrattas began to subside with the British occupation of Ajmer in 1818. This area, however, and particularly Mallani, where the local chiefs were endeavouring to establish their independence of the Jodhpur Raj, continued to be politically disturbed. Thus, in 1836, the British occupied the area largely with a view to making safe the route between Sind and Ajmer. Military control was handed over to the Jodhpur Darbar in 1854 and criminal jurisdiction in 1898.

Before the latter date, two important steps towards establishing a regular police force had been taken in Marwar State. In 1882, a special Thuggi and Anti-dacoity Department was brought into being and, three years later, another department known as the Mahakma *Girai* was established.

Prior to this, police duties had been performed by the State's troops and even the Mahakma *Girai* found some difficulty in functioning because the Imperial Service regiments rather resented its intrusion into what they considered their sphere. At the same time the troops, working largely through informers, were of little practical use in controlling crime and it was in recognition of their ineffectiveness that a regular police force was established in 1905.

This force when constituted consisted of an Inspector-General, five District Superintendents, two Assistant Superintendents, 19 Inspectors, 79 Sub-Inspectors, 41 Havildars, 111 Naiks, 415 mounted constables (including 200 furnished by the jagirdars), 1,144 foot constables and 71 *pagis* (trackers), besides clerks and the menial establishment. The total strength in 1905 was thus 1990, or one man for about 18 square miles of territory and 972 inhabitants, and the annual cost was estimated at nearly Rs. 2.2 lakhs.

For police purposes, Marwar State was divided into four districts (each under a Superintendent) and 15 circles (each under an Inspector), and there were altogether 70 *thanas* (police stations) and 123 *chaukis* (outposts). A reserve of 100 men was maintained at the capital.

This force had jurisdiction throughout Marwar except in the estates of certain Thakurs who were allowed to retain some of their

police powers. For example, they were held responsible for the detection and investigation of all offences other than heinous crimes such as murder, dacoity, highway robbery, etc. committed within their respective estates, and they had to keep registers and records which were open to periodical inspection.

The Darbar maintained no village police, but in some places *chowkidars*—usually members of the criminal tribes—were employed and paid by the inhabitants. The remuneration they received was termed *lag-bag* and was paid either in cash or kind. This system continued right up to the time of the integration of Jodhpur State. Actually, in the new set-up little change was required in police organization, the only new post introduced in the hierarchy being that of Deputy Superintendent of Police; in the princely State, the officer immediately below the Superintendent of Police had been the Circle Inspector.

The police set-up in 1949 was as follows:—

Circle Barmer

Police Stations				Outposts			
1.	Barmer	..	..	..	1.	Bisala	
					2.	Baitu	
2.	Chohtan	..	..	..	1.	Binjasar	
					2.	Bhungariya (Obhala)	
					3.	Bumner	
3.	Ramsar	..	..	..	1.	Jhinkali	
					2.	Siyani	
4.	Giran	..	..	..	1.	Keslua	
5.	Shiv	..	..	..	1.	Barsingha	
					2.	Rajdal	
					3.	Arang	
					4.	Bhinyar	
					5.	Zak	
6.	Girab	..	..	..	1.	Sundra	
					2.	Rohidi	
					3.	Munabao	
					4.	Gadra Raod	
					5.	Jaisinder Village	
					6.	Tamlare Rly. Station	
					7.	Jaisinder Rly. Station	
					8.	Lilma Rly. Station	
7.	Gura Mallani	..	..	..	1.	Dhorimana	
					2.	Malpura	

Police Stations				Outposts			
Circle Balotra							
8.	Balotra						
9.	Jesol						
10.	Sindhari	..	..	..	1.	Sarnu	
11.	Siwana	..	..	..	1.	Dhorna	
12.	Samdari						
13.	Mandal						

Present Position

The police force in the district is divided into two categories, viz., civil police and armed police. The armed police deals mainly with dacoits and robbers and also is called upon when a breach of peace is threatened. The total strength of the police force is as follows:—

Superintendent	1
Deputy Superintendents	2
Inspectors	4
Sub-Inspectors	25
Head Constables	92
Constables	646

The strength of each of the two categories is as follows:—

Armed Police

Reserve Inspector	1
Reserve Sub-Inspector	1
Head Constables	26
Constables	103

Civil Police

Circle Inspectors	2
Prosecuting Inspector	1
Sub-Inspectors	21
Prosecuting Sub-Inspectors	3
Head Constables	66
Constables	543

For police administration, the district has been divided into two Circles—Barmer and Balotra. Barmer Circle has nine police stations and Balotra Circle six. There is also a number of outposts. The set-up is as follows:—

Barmer Circle

Police Stations				Outposts			
1.	Barmer	..	..	..	1.	Baitu	
					2.	Bisala	
					3.	Town outpost, Barmer	
3.	Gura Mallani	..	..	..	1.	Dhorimana	
					2.	Malpura	
3.	Ramsar	..	..	..	1.	Siyani	
4.	Gidan	..	..	..	1.	Bataru	
					2.	Kesula	
5.	Chohtan	..	..	..	1.	Baori	
					2.	Binjasar	
					3.	Bamnor	
6.	Girab	..	..	..	1.	Gadra Road	
					2.	Jhankali	
					3.	Khabdala	
7.	Shiv	..	..	..	1.	Rajdel	
					2.	Barsingha	
					3.	Bhiyar	
					4.	Arange	
8.	Bhakasar	..	..	..	1.	Sarla	
9.	Sedwa	..	..	..	1.	Burhan-ka-Talla	
					2.	Ogala	

Balotra Circle

1.	Balotra	..
2.	Siwana	1. Padru
3.	Samdari	..
4.	Jasol	..
5.	Mandali	..
6.	Sindhari	1. Sarnu

There is also a Challani Guard at Balotra, the function of which is to arrange for the escort of under-trials to and from the courts. At each outpost, there is one head constable and four to eight constables.

Traffic Police

Only in Barmer town are there constables to direct traffic at road intersections. These constables are drawn from the civil police force; there is no separate Traffic Police unit.

Special Branch

The former Intelligence Branch is now known as the District Special Branch. It is controlled from C.I.D. headquarters at Jaipur.

Railway Police

In the time of the former Jodhpur State, small units of railway police were posted at important stations, in this district at Barmer, Balotra and Samdari. The district headquarters of the railway police is now at Barmer and there are three out-posts at Munabao, Samdari and Balotra, respectively. The strength is as follows:—

Station Barmer

Sub-Inspector	1
Head Constables	2
Constables	18

Outpost Munabao

Head Constables	1
Constables	5

Outpost Samdari

Head Constables	1
Constables	5

Outpost Balotra

Head Constables	1
Constables	3

Total strength

Sub-Inspectors Police	1
Head Constables	5
Constables	31

The following statement of cases dealt with shows that there has been a considerable decrease in the number of railway crimes in

recent years. Cases of travel without tickets are shown separately:—

Year	Theft in running trains	Theft at Stations	Theft at goods yards	Miscellaneous crimes	Total crimes	No. of cases of ticketless travel
1950	13*	7	5	118	143	43
1953	2	4	5	189	200	90
1955	2	5	2	19	28	155
1958	..	3	1	4	8	89
1960	2	2	3	6	13	17

Anti-Corruption Squad

An Anti-Corruption unit was formed in the district in 1960-61 before which cases were dealt with directly by the Deputy Superintendent, A.C.D., Jodhpur. The strength of the unit is one Deputy Superintendent, a Sub-Inspector, a head constable and two constables. The Deputy Superintendent's jurisdiction also covers the districts of Jalore and Jaisalmer.

R. A. C.

By an Act passed in 1950, a special body of police called the Rajasthan Armed Constabulary was formed. The first recruits were largely numbers of the former princely State armies. The function of the R.A.C. is to assist the regular police when the law and order situation threatens to get out of hand but more especially to patrol the border areas. In July 1951, the 3rd. Bn. R.A.C. was posted in this district to patrol the border areas. The headquarters of the battalion are situated near Barmer town.

The Commanding Officer is of rank equivalent to Superintendent of Police. He is assisted by two Assistant Commanding Officers of the rank of Deputy Superintendent of Police who command eight of the nine companies. The ninth company is at headquarters and is known as the Headquarters Wing.

The set-up is as follows:—

1. Commanding Officer (S.P.'s rank)	..	1
2. Asstt. Commanding Officers (Dy. S.P.)	..	2 (each commanding four companies).
3. Adjutant	..	1 (commanding the 9th company).
4. Quarter-Master	..	1
5. Company Commanders (Inspector's rank)	..	8
6. Platoon Commanders (Sub-Inspectors)	..	27

The number of border raids (which are mainly for the purpose of cattle lifting but are sometimes more serious) fluctuate from year to year. They reached a high water mark in 1958, when 56 cases were recorded, but in 1960 they dwindled to only five.

JAIL ADMINISTRATION

In the parganas of Jodhpur State which now comprise the district, the Judicial Superintendent at Balotra and the Hakims in charge of the parganas were responsible for the efficient management of the jails and the proper care of prisoners. These pargana lock-ups were governed by the provisions of the Marwar Prison Act (1932).

Present Set-up

There are now only two sub-jails in the district, at Barmer and Balotra, respectively, which are under the supervision of the Sub-Divisional Magistrates stationed at these places. That at Balotra is a first class sub-jail and the Barmer sub-jail is of the second class. In each sub-jail there are two barrack cells, one for males and the other for female prisoners. Their capacity is as follows:—

Sub-Jail	ACCOMMODATION		
	Male	Female	Total
Barmer	20	2	22
Balotra	18	2	20

Each sub-jail has staff consisting of an Assistant Jailor, a head warder and eight warders. Though the jail accommodation at Barmer is a slightly larger, the building is less impressive than the sub-jail at Balotra, which is built of stone and is very strong. Only under-trial and those sentenced up to one month's imprisonment are kept in the sub-jails. Those sentenced in the district courts for longer terms of imprisonment are sent to Jodhpur.

Prison Discipline

Discipline is maintained in accordance with the Jail Regulations. The prisoners are housed together according to sex and there is no provision for solitary confinement. They are well behaved and no instance of disorderly conduct has been reported in recent years.

Welfare

The sub-jails are visited on alternate days by a medical officer; a compounder comes daily to give medicine to the sick. There is a prison library from which books are supplied to those who want them. Visits of relatives are permitted according to rules and for each sub-jail there is a Board of Visitors which makes periodical visits and brings complaints to the notice of the authorities.

Neither sub-jail has facilities for crafts such as basket-making and mat-weaving. This is because no inmate stays for long.

JUDICIARY

Historical Sketch

Up to the close of the 18th century, because of external invasions and internal disorders, there was neither any written law nor any system of properly constituted courts of justice. In some cases people settled their disputes by recourse to arms, in others the assistance of the village panchayats was sought (where, as often as not, resort was had to one of the different forms of trial by ordeal) and in rare cases, especially when one or both of the parties were influential, the matter would be taken before the *Hakim*. Appeals against the decisions of the *Hakim* lay to the Diwan at the capital, Jodhpur.

Colonel Tod, describing the Marwar of his time (1818-22), wrote that since the death of Maharaja Bijai Singh (1793) "the judgement-seat had been vacant" and that "the administration of justice was very lax in these communities", capital punishments being rarely awarded, and the common sentences in cases of murder being fine, corporal punishment, imprisonment, confiscation of property or banishment. On the other hand, political offences were summarily dealt with, and the whole power of the government was concentrated to punish them.

In 1839 there were established certain courts at the capital and in the districts, justice in the latter being administered by the *Hakim*, the *Karkun*, the *Munsiff*, the *waqa-navis* and the *Ittila-navis*. Appeals were allowed except in cases of a trivial nature, but the procedure in all these courts was very primitive.

Up to 1873 the proceedings of a case were seldom recorded, and no files or registers were kept. Even where crime was proved,

the law could not reach an offender if he belonged to a privileged class or sought shelter in a temple or with an influential person. In *Jagir* areas, the state of affairs was even worse, as the *jagirdars* resented any interference on the part of the Darbar.

It was till the seventies of the last century that concrete steps were taken to establish a proper judicial system. These steps were: (i) suppression of crime with the aid of a strong police force; (ii) institution of a board of crime control called the *Mahakma Musahibat* (later re-styled the *Mahakma Khas*); (iii) creation of fresh courts and the introduction of statutory law, and (iv) bringing the powers of the leading nobles into harmony with the mechanism of the State law courts, after a proper definition and classification of the same into three grades.

With a view to supplying the want of tribunal strong enough to command the obedience of the *jagirdars*, a Court of Sardars was brought into existence in 1882. Two *Munsiffs'* Courts were added in 1884 and 1886 to dispose of accumulated arrears and at the headquarters of two Circles or groups of districts were located Judicial Superintendents' Courts to check the work of the *Hakims* and to dispose of, on the spot instead of at the capital, certain cases beyond the powers of the latter. One such court was located at Balotra.

This reorganisation was not confined to the creation of new tribunals but was accompanied by systematic legislation which resulted in an approximation of the entire judicial machinery to the regular Anglo-Indian Model. The *Mahakma Khas*, presided over by the Maharaja, was both the Legislature and the High Court for Marwar. Before making any attempt towards codification, it issued from time to time, rules and regulations for the guidance of the subordinate courts.

During 1885-86 a Civil Procedure Code, Limitation, Evidence and Stamps Acts and a Criminal Procedure Code were prepared and published, the first four coming into force in January 1886 and the last in March 1887. All were based on similar enactments in British India, with modifications to suit local requirements. In civil cases the courts followed the generally understood principles of Hindu Law and local usage.

State Courts

The State tribunals numbered 85 and consisted of (a) 41 courts prescribed over by officials appointed by the Darbar and

(b) 44 courts presided over by *jagirdars* or their managers. To the first group belonged nine *hawala* courts (none of which were situated in this area), 23 *hakumat* courts, the Jodhpur Kotawali, the Mallani *munsifi*, the courts of the two Superintendents of Circles, the Civil Court (*Sadar Diwani*), the Criminal Court (*Sadar Faujdari*), the Appellate Court, the Court of Sardars and the Mahakma Khas.

Jagir Courts

Since Mallani particularly and the other parganas of the area were largely under *jagirdars*, the *jagir* courts merit some description. In 1883 the *jagirdars* were divided into three grades, namely, (a) those authorized to try civil suits not exceeding Rs. 1,000/- in value and to pass sentences up to six months' imprisonment and Rs. 300/- fine; (b) those possessing exactly half of these powers, and (c) those which could take up suits of value not exceeding Rs. 300/- and could punish with one month's imprisonment and fine up to Rs. 100/-. Appeals lay from all these courts to the State courts. The *jagirdars* who possessed judicial powers were obliged to keep as assistants persons trained in judicial work and approved by the Mahakma Khas.

Chief Court

In 1922, a Chief Court was established at Jodhpur and all the powers of the Mahakma Khas were transferred to it besides original jurisdiction in suits of the value of more than Rs. 10,000/-. The entire judicial system was reorganized at the same time; Jodhpur State was divided into four Circles, each under a Judicial Superintendent, the powers of all courts were properly defined and rules regarding examination and enrolment of vakils were introduced for the first time.

A further reorganization was effected in 1924 when the District and Sessions Courts took the place of the *Faujdari* and Civil Courts and the Court of Sardars and courts of Naib Hakims were created for the first time.

As time passed, the jurisdiction of the courts, both original and appellate, was considerably modified. The position at the time of the merger can be summarized as follows:—

Chief Court

At the apex was the Chief Court. On the criminal side, it exercised original jurisdiction in all criminal cases in which the death penalty was considered necessary. Appeals

against acquittals went to the Chief Court as did cases in which the Sessions Judge was of the opinion that the capital sentence should be awarded. Sentences of life imprisonment passed by a Sessions Judge also were subject to confirmation by the Chief Court.

Sentences of death awarded by the Chief Court were subject to confirmation by the Darbar.

On the civil side, the Chief Court had concurrent powers with the District Courts to try original civil suits of the value of Rs. 10,000/- or more. It heard appeals from the original decrees of the District Courts and second appeals from the *Hakims* and Judicial Superintendents' Courts.

District and Sessions Courts

There were three District and Sessions Courts. Court No. 3 had territorial jurisdiction over the parganas of this area.

On the civil side, this court was empowered to try original suits of value of Rs. 4,000/- or more and to hear appeals from the decrees of the Judicial Superintendents. Insolvency jurisdiction also vested in it.

On the criminal side, as Court of Sessions it had the power of awarding any sentence except that of death; sentences of life imprisonment were subject to confirmation by the Chief Court. All appeals against conviction by Magistrates of the First Class and the Thikana Courts lay to the Court of Sessions.

Judicial Superintendents' Courts

There was a Judicial Superintendent's Court for each of the four Circles of Mallani (with headquarters at Balotra), Sojat, Nagaur and Phalodi. The Mallani Circle comprised the parganas of Barmer, Shiv, Jaswantpura, Sanchoe, Siwana, Pachpadra and Jalore.

On the civil side, the Judicial Superintendent had original jurisdiction in suits of the value of Rs. 100/- to Rs. 4,000/- and heard appeals from the decrees of the *Hakims* and the Naib *Hakims*. On the criminal side he exercised powers under Section 30 of the Marwar Criminal Procedure Code and the power of hearing appeals against conviction by Magistrates of the Second and Third Classes. He also exercised the powers of District Magistrate.

Hakims Courts

In this area, there were *Hakims* at Barmer, Shiv, Pachpadra and Siwana. A post of Naib *Hakim* also existed at Barmer

The *Hakim* on the civil side was empowered to try suits up to the value of Rs. 1,000/-. On the criminal side, he was a First Class Magistrate but without any appellate powers.

The Naib *Hakim* tried monetary suits up to the value of Rs. 200/- on the civil side, and exercised Third Class magisterial powers on the criminal side for the first two years after which he was authorized to try civil suits of all kinds up to the value of Rs. 500/- and was invested with Second Class magisterial powers.

Thus, prior to January 1949, in the former Jodhpur State there was no separation of the executive and judiciary. All three District and Sessions Judges had their headquarters at Jodhpur City. For the purposes of civil, criminal and revenue law, the State was divided into *hakumats* or *parganas*. In every *hakumat* there was a *Hakim* and in some Naib *Hakims* as well. The *Hakim* was the counterpart of the present Munsiff-Magistrate. Two or more *hakumats* were in the charge of an officer designated as Judicial Superintendent, who performed the functions of District Magistrate and was a subordinate Judge for civil cases. There were also Revenue Officers who exercised no judicial powers.

In January 1949, the District Officer system was introduced in the princely State and in each district a Collector was appointed. Under him there were Assistant Collectors and under them Tehsildars. Courts of subordinate Judges and Munsiffs were also established; these were given pecuniary jurisdiction up to Rs. 4,000/- and Rs. 1,000/-, respectively.

Present Position

After the formation of Rajasthan all Collectors of Districts were appointed District Magistrates by virtue of their office. Similarly, all Assistant Collectors in charge of Sub-Divisions were appointed First Class Magistrates and Sub-Divisional Magistrates and all Tehsildars were given the powers of Magistrates of the Second or Third Class. Thus the criminal jurisdiction of the superior Revenue Officers was confirmed. Where criminal case work was heavy, Extra Magistrates were appointed.

The Court of a District and Sessions Judge, with headquarters at Balotra, was constituted a few months before the merger with overall jurisdiction in civil and criminal matters over Barmer and Jalore Districts. Before this, cases had been dealt with by a District and Sessions Judge at Jodhpur, as already stated. In the *now set-up*,

the court of a Civil Judge has been established at Balotra with jurisdiction over Pachpadra and Siwana Tehsils. There is a munsiff at Barmer with jurisdiction over the remaining three tehsils of Shiv, Barmer and Chohtan.

On the criminal and revenue side, the present position is as follows:—

The Collector as District Magistrate is subordinate to the District and Sessions Judge in criminal matters but is at the apex (after the abolition of the posts of Commissioners in 1961) of the district revenue courts. Under him in both criminal and revenue matters are the Sub-Divisional Officers (Magistrates) at Barmer and Balotra each of whom has First Class powers. There is also an Extra Magistrate at Barmer with First Class powers; the division of jurisdiction between the Extra Magistrate and the S.D.M. Barmer has been made on the basis of police station areas. The Tehsildars have lesser criminal and revenue powers, as indicated before, in their respective areas. Other Magistrates are posted as follows:—

Chohtan	..	..	..	Second Class Magistrate
Barmer	..	..	..	Third Class Magistrate
Shiv	..	..	..	-do-
Siwana	..	..	..	-do-
Pachpadra	..	..	..	-do-

Legal Profession

There are two Bar Associations in the district, one situated at Balotra and the other at Barmer. The former is well organized and regular meetings are held. It was set up in 1953-54 and in 1960-61 had 18 members, of whom 14 were advocates and the rest pleaders. The Association runs a small library.

The Bar Association at Barmer was formed in 1945-46 but is less active. On its rolls are five advocates and 18 vakils.

CHAPTER XII

OTHER DEPARTMENTS

In this Chapter are described those departmental activities which have not been dealt with elsewhere in this gazetteer.

Public Works Department

An office of an Assistant Engineer of the Public Works Department, located at Barmer town, is under the supervision of the Executive Engineer, Western Division, Jodhpur. Under the Assistant Engineer are four overseers, three stationed at Barmer and one at Balotra, plus clerical staff.

Apart from the road building programme, which is described in the chapter on Communications, the main functions of the district office are the repair and maintenance of Government buildings and the construction of new ones. Some of the more important construction works undertaken in recent years are as follows:—

- (1) Rest houses at Gura Mallani, Sindhari, Barmer and Balotra.
- (2) Police stations at Gura Mallani, Samdari and Girab.
- (3) Jail building at Balotra.
- (4) S.D.O's. Court at Balotra.

The list is long and the above items are only indicative of the type of work undertaken.

Rehabilitation Department

After partition, a large number of refugees came over to the district from Sind. Many have since left and rehabilitation work has now come to an end. A single clerk in the Collector's office was dealing with cases, most of which referred to loans. The Deputy Custodian at Jodhpur has charge of evacuee property in the district.

Court of Wards

At the time of the formation of Rajasthan, there were 23 estates with the Court of Wards of Jodhpur State. These were

supervised by two *Kamdars* and an Inspector with the help of five patwaris. The headquarters of the Inspector was at Balotra. After the merger, five more estates were taken under the management of the Court of Wards, the guardian being the Board of Revenue of the Rajasthan Government. Since 1953 no additional estate has been taken under management.

Devasthan Department

In Jodhpur State, there was a Devasthan Dharampura Department which managed not only religious places but also asylums and schemes undertaken out of charity funds.

After the formation of Rajasthan, the Government created a Devasthan Department under the charge of a Commissioner, whose headquarters are at present at Udaipur. Barmer district is under the charge of an Assistant Commissioner posted at Jodhpur.

Immigration Check-posts

Two police check-posts were established at Barmer and Munabao, respectively, on August 1, 1955, for the purpose of checking the documents of travellers between India and Pakistan. Each post is under an officer of the rank of C.L., who is assisted by six sub-Inspectors, 12 Head Constables and 46 constables. The immediate controlling authority is the Superintendent of Police (Police Zone Officer) Jodhpur.

Anti-Malaria Unit

A Malaria Eradication Programme Unit was established at Barmer in March, 1960. Prior to this, some parts of the district were under the Malaria Control Programme Unit stationed at Jalore.

A Medical Officer is in-charge of the unit at the district level in addition to his other duties. He takes instructions and assistance from the Assistant Director of Public Health (Malaria) at Jaipur. There are two anti-malaria sub-units posted at Barmer and Shiv, respectively; the sphere of operation of the Unit covers both Barmer and Jaisalmer districts. Apart from the Medical Officer in-charge the sanctioned strength of the Unit consists of an Assistant Unit Officer, three Technicians, six Malaria Inspectors, 24 Surveillance Inspectors, 96 Surveillance workers, three Superior Field Workers and seven Field workers, plus clerical and other staff.

During 1960, the Unit sprayed 72,081 houses and 4,028 cattle-sheds in 761 villages.

CENTRAL GOVERNMENT DEPARTMENTS

The following departments of the Central Government are functioning in the district:—

- (a) Railways
- (b) Posts and Telegraphs
- (c) Central Customs and Excise
- (d) Anti-locust Unit
- (e) Income Tax
- (f) Meteorological Observatory
- (g) National Savings Office

Railways

The Divisional Superintendent of the Northern Railways at Jodhpur has jurisdiction over this area. The first railway line in the district, from Luni Junction to Pachpadra, was set up in 1887. There are two junctions, namely Samdari and Balotra. From Samdari a branch line goes to Bhildi via Jalore, Mokalsar being the last station on this line in this district. From Balotra, a branch line goes to the Pachpadra Salt Depot.

All the lines are metre-gauge. Details are given in the chapter on Communications.

Posts and Telegraphs Department

The district is under the supervision of Superintendent, Post Offices, Western Division, Jodhpur. There are at present only 62 post offices in the whole district. The two telephone exchanges at Barmer and Balotra are under the S.D.O. Telephones at Jodhpur. Further details of the postal set-up are given in the chapter on Communications.

Central Customs & Excise Department

The inland land customs station of Barmer was established in 1948. At first the station was administered by the Rajasthan Customs Department and assumed considerable importance due to the heavy flow of migrants proceeding to Pakistan for permanent settlement without travel documents. On April 16, 1950, the administration was taken over by the Government of India. It was

not, however, till July 31, 1955 that the Munabao-Khokhrapar route was made an authorized route for journeys to Pakistan.

Customs work is channelled through two separate branches. One branch deals with passenger traffic while the other is engaged in the prevention of smuggling on the Pakistan border. Each branch is under the control of a Deputy Superintendent, who is responsible to the Superintendent, Central Excise and Customs. This officer is in turn subordinate to the Assistant Collector, Central Excise and Customs. The Collector, Central Excise and Customs, New Delhi, is at the apex of the administration.

There are 20 Inspectors and Supervisors attached to the customs station. Their duties are mainly to ensure that the Indo-Pakistan Baggage Rules are properly observed and no attempt is made by travellers to circumvent the various restrictions imposed on foreign travel.

Anti-Locust Units

As this is a border district, a unit has been established at Barmer to give warning of locust invasions and to take measures with the assistance of the district authorities, to destroy hoppers. A locust warning officer is in charge. The unit is controlled by a Deputy Locust Entomologist stationed at Jodhpur.

Income Tax Department

There is no Income Tax Officer posted in the district, but Inspectors from the office of the Income Tax Officer at Jodhpur make periodical tours.

Meteorological Observatory

There is only one meteorological observatory in the district, at Barmer. The staff employed consists of an officer in-charge, an observer and an observatory assistant. Meteorological observations are sent to the Regional Meteorological Centre, New Delhi.

National Savings Office

Under the National Savings Scheme, a Small Savings Organizer has been posted at Barmer. He works under the supervision of the Collector but is also responsible to the Deputy Regional National Savings Officer stationed at Jaipur. In the past few years, the

following achievements in regard to collections under Small Savings Securities have been recorded:

					(Rupees)
Year					Gross Collections
					Net Collections
1958-59	..	..	..	..	3,60,000
1959-60	..	..	..	..	5,89,800
1960-61	..	..	..	..	4,40,700
					(=) 80,900

CHAPTER XIII

LOCAL SELF-GOVERNMENT

History

Though no records are available, it is probable that village panchayats existed in this area before the feudal system was firmly established. Once this happened, local government in the villages virtually disappeared and the people had to obey the dictates of others rather than have their corporate life supervised by their own chosen representatives. However, in several communities such as the Rajputs, Brahmans, Oswals, etc., there continued to exist councils known as *Jaat* Panchayats. These panchayats merely performed certain social functions directed towards protecting the interests of the communities they served. They had no official powers or even functions.

It was not till the early 1940's that the Jodhpur Government seriously considered the establishment of village panchayats. Finally, in 1945, the Marwar Gram Panchayats Act was promulgated and local bodies were formed in *Khalsa* villages. By 1949, there were 28 panchayats in the district, serving a total of 36 villages. A Government Inspector supervised the working of these panchayats, which were given minor judicial powers. After the formation of the district under the new Government of Rajasthan, many more panchayats came into existence and by 1953 the total number in the area had increased to 124.

With the passing of the Rajasthan Panchayats Act in 1953, tehsil panchayats were set up. In the succeeding years more panchayats came into existence and the process was considerably speeded up with the introduction of the scheme of democratic decentralization. Thus, at the end of 1960-61, there were 247 panchayats in the district. The tehsil panchayats were abolished, their place being taken by the panchayat samitis, the jurisdiction of which coincided with the development blocks and "shadow" blocks, and at the headquarters level there was the Zila Parishad to co-ordinate local development activities for the whole district.

In the towns, local government was introduced earlier. In 1915, a municipal board came into existence in Balotra town and in 1932 Barmer also was given a municipality. At first the membership was purely official but later on elective element was introduced. After the passing of the Rajasthan Town Municipalities Act, wider powers and responsibilities were given to these bodies. There has never been any District Board in the area.

Municipalities

Balotra

The municipality at Balotra, as stated earlier, was set up in 1915. In the beginning, there were seven members, all nominated by the Government; the *Hakim* of the pargana was Chairman. In 1931-32, the Judicial Superintendent at Balotra became President of the Board and the *Hakim* of Pachpadra was made Vice-President. The Sub-Assistant Surgeon, Balotra, was an ex-officio member. There were eight non-official members, but all were nominated. In 1940-41, the non-official strength was raised by two to give representation to the *Sunar* and *Mali* communities.

It was not till 1946 that an elective element was introduced. When the Rajasthan Town Municipalities Act came into force in 1951 the municipality came under the control of the Directorate of Local Bodies, Rajasthan.

Organisation: At present (1960-61) the total number of the elected members is ten. The town is divided into 10 wards and one member is elected from each ward. Two members are nominated by the Government, one from the Scheduled Castes/Tribes and the other a woman. The term of office is three years. The Executive Officer is appointed by the Directorate.

The office establishment has five sections, namely, Tax Collection, Sanitation, Water Works, Power House and General Establishment. The strength of these sections is as follows:—

General Establishment: One head clerk, an accountant, two clerks, three peons, an office jamadar, a waterman and a *tamil kuni*.

Tax Collection staff: One tax clerk, eight *naib-octroi moharirs*, three tax jamadars and a warehouse chowkidar.

Sanitation staff: One overseer, a driver, a cleaner, a waterman, two jamadars, seven female sweepers, 25 male sweepers, a cartman and a gardner.

Water works Staff: One regular fitter, a keyman, a meter reader, a cleaner and a chowdikar.

Power House Staff: One Assistant Engineer, a mechanic, a store-keeper, a meter clerk, three drivers, four cleaners, a lineman, a switchboard attendant, a fuseman and a cartman.

Thus the total strength of the staff is 84, including the Executive Officer.

Powers and Duties: In the early days of the municipality, there were no well defined laws and bye-laws, but in 1943 some of the provisions of the Jodhpur Municipalities Act were applied. Up to the time of the merger, the main functions of the municipality were sanitation and street lighting. Later, with the passing of the Rajasthan Town Municipalities Act, further powers and duties were acquired so that the municipality now has power to impose taxes on vehicles, entertainment, electricity and water supply as well as octroi.

Its main duties are sanitation and public health, lighting, water supply and public utility construction. These are described below:—

Sanitation: There is a municipal tractor which makes a number of rounds daily to gather up refuse. Nearly eight tons of waste thus carted away daily is composted. More than 30 sweepers are employed to clean the streets daily. They are supplied with phenyl and powder disinfectants for use in the municipal latrines and urinals.

Lighting: The power house under municipal control has three generating sets, one of 50 kw. and two of 22½ kw. each. There are 140 street lights and 120 private connections. Power is also supplied to small factories.

Water: A pumping set in a step-well on the bank of the river Luni carries water to an overhead tank from which supplies are made through two main lines for five hours in the day. There are 95 public connections and 225 private connections. The water pipe-lines total 1800 ft. Four hundred feet of pipe-line have been laid for flush sanitation.

Construction work: Construction and maintenance of roads in the towns is under the control of the municipality. The main street is paved with stone slabs. Since 1950-51, a total of 63,130 ft. of paved road have been laid in the town, besides 2,600 ft. of gravel

road and 2,550 ft. of metalled road. A bitumen top has been given to 1,605 ft. of road. All roads are repaired at intervals.

The drains of the town are largely of the shallow, gutter type and are adequate except when very heavy rain falls. A total of 1,219 ft. of new drains were constructed in 1960-61. Some drains were also covered.

Other construction works, which are carried out periodically as funds permit, include staff quarters for municipal employees, latrines and urinals. A refuse station has recently been built near the railway boundary.

Financial Position: The following statement shows the income and expenditure of the municipality in selected periods over the past 30 years.—

(Rupees)			
Year	Income	Expenditure	
1930-31	8,458	2,917	
1940-41	6,998	4,365	
1950-51	39,425	21,433	
1955-56	78,453	70,330	
1959-60	1,54,756	1,96,476	
1960-61	1,74,107	1,96,375	

The increase in the functions of the municipality since the passing of the Town Municipalities Act is reflected in the figures of income and expenditure. The break-up of these figures for the year 1960-61 is as under:—

Income	Rs.
1. Taxes	92,881
2. Income under other laws	56,296
3. Fees, Fines etc.	2,525
4. Subsidies	327
5. Sale of lands	6,901
6. Miscellaneous	5,080
7. Grants-in-aid	9,147
TOTAL	1,74,107

Expenditure	Rs.
1. G. A. D. including tax realisation and other office expenses	30,091
2. Public health and sanitation	44,955
3. Public Works	17,431
4. Light	61,284
5. Water Works	18,551
6. Cattle Pound	1,408
7. Public Utilities	9,691
8. Public Safety	528
9. Others	3,326
TOTAL	1,86,375

Barmer

The town of Barmer, though the largest in the area had to wait till 1932 for the establishment of a municipality largely because the land was held by various people in Bhomichara tenure and these jagirdars feared that their rights might be curtailed. A representation made on behalf of the people in 1931 was, however, eventually accepted by the Darbar and a Municipal Board came into being on July 1, 1932. The *Hakim* was made Chairman of the Board and the Sub-Assistant Surgeon, the Headmaster of the D.E.M. school and the Circle Inspector of Police were members. The functions of the municipality at first were merely clearing of refuse and attention to street lighting and terminal tax on imports and exports was the only source of income.

In 1939, five non-official members were added to the Board, representation being allotted to various communities. In the same year, the functions were enlarged to cover construction of buildings and the prevention of encroachment on public thoroughfares. In 1940-41, the number of non-officials was raised to 17 and at the same time the Inspector of Police was dropped from the list of official members and replaced by the Naib *Hakim*. The *Hakim* continued to preside.

The Directorate of Local Bodies, Jodhpur, was given administrative control of the municipality in 1944-45. There was some change in the official representation, though the total number (four) was not affected. The year 1948-49 saw a major change, for it was decided that all members should be elected, except that the Government reserved the right to nominate a member of the backward classes and a woman if no such persons were elected. Twenty-two members, including two nominated persons as above, took office in November 1949, but for the second elections, in 1953-54, the number was reduced to 18, two of them nominated. This set-up continues.

Organization and Structure: As stated earlier, the Board at first had only four official members. The staff at its disposal consisted of a clerk, two jamadars and 14 workers for sanitation and street lighting. The staff was gradually increased so that in 1950-51 it consisted of three clerks, a Sanitary Inspector (first appointed in 1946-47), two jamadars, two peons and 41 sweepers. By 1960, as a result of the increase in municipal functions, the staff had risen to 23 clerks including tax collection *moharrirs*, a Sanitary Inspector, an overseer, two jamadars, seven peons and 64 sweepers, excluding the staff of the power house.

The Board has a President, a Vice-President and an Executive Officer who is appointed by the Directorate of Local Bodies, Rajasthan.

Powers and Duties: At the outset, there were no well defined powers of the Board but, because the members were officials, decisions taken at meetings could be implemented without difficulty. In 1943, the provisions of the Jodhpur Municipalities Act were made applicable and for the first time proper laws and bye-laws were introduced. With the passing of the Rajasthan Town Municipalities Act, the Board was given the powers and duties of a municipality of the second category in May 1960.

Financial Resources: Up to the year 1953, the main source of income was terminal tax. This was doubled in 1943-44 because of the rise in prices. In 1953, sanction was given by Government for the charging of Entertainment Tax and in 1956-57 bye-laws regarding the issue of *Thelagadi* Licences (Vehicle Tax) were passed, bringing about a considerable increase in the Board's income.

The Board also receives income by way of fines, fees and the takings of the cattle pound. Formerly the municipality was a self-supporting body but in recent years loans and grants-in-aid have been received from the Government for specific purposes.

The following table shows the income (in rupees) of the Board in selected years:—

Item	1932-33	1940-41	1950-51	1955-56	1960-61
(a) Taxes ..	2,957.42	4,010.46	53,379.00	94,303.72	1,47,523.93
(b) Income under other sources ..	..	..	..	..	35,298.78
(c) Fees, fines, etc. ..	..	..	561.00	4,110.00	11,733.89
(d) Subsidies ..	..	..	..	10,406.00	27,365.00
(e) Loans ..	..	..	..	..	52,000.00
(f) Grants-in-aid ..	..	..	..	16,581.37	12,500.00
(g) Miscellaneous ..	..	..	190.00	7,075.41	20,167.04
TOTAL ..	2,957.42	4,010.46	54,130.00	1,32,470.50	3,06,588.64

Total expenditure (in rupees) in the same years was as follows:—

1932-33	2,274.70
1940-41	3,406.05
1950-51	29,852.66
1955-56	1,48,668.33
1959-60	2,03,501.84
1960-61	2,81,332.72

The income and expenditure figures show the extent to which the activities of the municipality have increased in recent years. It is not possible to give a detailed statement of comparison of expenditure figures for different years as the items of expenditure vary from year to year. However, the break-up of expenditure in 1960-61 will give some idea of general pattern. It is as follows:—

Item	Amount (in rupees)
General admn.	15,134.76
Tax Realisation	12,018.21
Other Office expenses	4,932.39
Public Utilities	61,532.61
Light	6,211.95
Water	7,980.20
Cattle Pound	1,680.95
Library	848.35
Park	87.50
Public safety	978.26
Public works	30,574.96
Earnest Money and deposits	3,541.00
Miscellaneous	7,247.82
Education	109.00
Expenditure out of water supply loan	45,591.50
Power House	76,936.60
Water works	5,966.46
TOTAL ...	2,81,332.72

Achievements

In the beginning, the municipality could not work effectively in the absence of well defined powers and duties. Later it was able to take up important projects like the setting up of a power house and supply of drinking water. Achievements in various spheres are as follows:—

Sanitation and Light.—In 1932-33 there were only 28 street lanterns in the town. Fourteen sweepers were employed to clean the streets. By 1942, the number of lanterns had risen to 30 and there were in addition eight petromax lamps. By the same year a number of drains had been built and 16 refuse bins placed at different spots. Now, there are eight compounds with 25 seats in each to serve as latrines for women.

Later, in order to remove refuse from the town, a lorry was hired. By 1952, the number of petromax lamps on the streets had risen to 24 and the number of sweepers to 41.

In 1953-54, two small engines were installed for the generation of electricity. At the start there were only 76 electric bulbs on the streets but by the end of 1960-61 the number had risen to 238.

Water: Barmer town has always suffered from a scarcity of water and the problem has become acute as a result of the growth of population. The main source of water supply is wells, but since 1947-48 piped supply has been available from a step-well. Only part of the town is served and that too for two hours in the day.

Construction work: In 1955-56 there was a total of 3,966 ft. of bitumenized road and 2,318 ft. of other roads under municipal control. By the end of 1959-60 a total of 2,778 ft. of new road had been built. Other construction works carried out from time to time include the construction of drains and the erection of buildings for municipal needs. In 1960, work was started on a municipal office building.

Miscellaneous: The municipality does not run any school but a grant of Rs. 700/- is made yearly to an institution known as the Sarvajanik Vachanalaya. A further sum of Rs. 300/- is given yearly to a piao (Jamna Das Piao) situated at the junction of the roads leading to Chohtan, Gura and Bhakasar.

Due to the scarcity of water, the refuse of the town, which is nearly 14 tons per day, cannot be turned to manure by the composting

method. The scarcity of water has also made it impossible to maintain a public park.

PANCHAYATS

The history of panchayats in the area prior to the passing of the Rajasthan Panchayats Act in 1953 has been traced earlier in this chapter. Under the Act, tehsil panchayats were set up at the headquarters of all tehsils and they controlled a total of 139 panchayats. Of these, 59 were under the jurisdiction of the Barmer tehsil panchayat, 17 under Pachpadra, 17 Siwana, 28 Chohtan and 18 under the Shiv tehsil panchayat. It was laid down that a panchayat should have not less than five and not more than 15 elected members but provision was made for the appointment by Government of an additional panch belonging to the backward classes if no such person was elected. Each tehsil panchayat consisted of a Sarpanch and six to eight panchas, elected by the members of all panchayats in the tehsil.

The panchayats were given a long list of functions, some obligatory and others discretionary. Among the former were the construction, repair and maintenance of public wells and ponds, sanitation, street maintenance and lighting, registration of births, deaths and marriages, regulation of meals and establishment and maintenance of primary schools. The discretionary duties included tree planting, development of co-operation, famine relief, establishment of reading rooms and measures designed to promote the moral and material well-being of the people. Certain judicial powers were also given; in administrative cases, the panchayat could impose fines up to a maximum of Rs. 15/- and in judicial cases up to Rs. 50/-.

As part of the new set-up of local self-government, it was proposed to set up a District Board under the Rajasthan Act passed for this purpose. This proposal, however, did not materialize and it was finally abandoned when the Government of Rajasthan decided in 1958 to introduce the scheme of democratic decentralization.

Democratic Decentralization

The Rajasthan Panchayat Samities and Zila Parishads Act was passed by the State Vidhan Sabha on September 2, 1959 and received assent seven days later. As a consequence, a three-tier system of local self-government was introduced from October 2, 1959. A description of the main features of the scheme has been reserved for the State Gazetteer; it would be sufficient here to describe the organizational set-up in this district.

As earlier stated, under the Rajasthan Panchayat Act, five tehsil panchayats were formed, controlling a total of 139 panchayats. These panchayats continued to exist when the new scheme was introduced and the tehsil panchayats themselves were not abolished till February 14, 1961. In December 1960, however, the panchayat set-up was completely reorganized so that there are now 247 panchayats covering the whole district and distributed among the eight panchayat samities as follows:—

1. Barmer Panchayat Samiti

1. Butiya, 2. Gagra, 3. Bida-ka-par, 4. Pandhi-ka-par, 5. Chadi, 6. Khadeen, 7. Setrao, 8. Ramsar, 9. Bhachwar, 10. Gangala, 11. Indrohi, 12. Siyani, 13. Derasar, 14. Naind, 15. Jessai, 16. Balera, 17. Suracharnan, 18. Bisala, 19. Ranigaon, 20. Dadaka, 21. Marudi, 22. Mahwar, 23. Sanawada, 24. Buthjetmal, 25. Hathitala, 26. Gera, 27. Bhadresgothatra, 28. Dharasar, 29. Taratara, 30. Isrol, 31. Sanan, 32. Leelsar, 33. Bachhadan and 34. Barmer.

2. Chohtan Samiti

1. Chohtan, 2. Netrad, 3. Konara, 4. Booth, 5. Itada, 6. Deisar, 7. Bijrad, 8. Atia, 9. Tok, 10. Ramjan-ki-Gafan, 11. Kelnor, 12. Nawatala, 13. Sarup-ka-Tala, 14. Bisagar, 15. Mitawa-ka-Tala, 16. Alamsar, 17. Burhan-ka-Tala, 18. Gohar-ka-Tala, 19. Dhanan, 20. Sawa, 21. Sedwa, 22. Bhanwar, 23. Bijasar, 24. Harpalia, 25. Sarla, 26. Natwatala, 27. Inapalia, 28. Hathala, 29. Tharia, 30. Paggia, 31. Panoria, 32. Bhakasar and 33. Bhawaria.

3. Gura Mallani Samiti

1. Gura Mallani, 2. Bata, 3. Nagar, 4. Medana, 5. Rtanpura, 6. Lunwa Jagir, 7. Jhankarpura, 8. Sidaswa, Harijan, 9. Ghandhwa Kalan, 10. Borohararnan, 11. Piprali, 12. Bhimthal, 13. Ariyanali, 14. Mitra Khurd, 15. Khari, 16. Ransar Kalan, 17. Koja, 18. Dhorimana, 19. Dundu, 20. Mangta, 21. Lukhu, 22. Udassar, 23. Loharwa, 24. Bamnor (Arnishah), 25. Bisarniya, 26. Kitnorita, 27. Kekar, 28. Sobhala, 29. Baniarla, 30. Bherudi, 31. Bhunia, 32. Ogla and 33. Ganpasara.

4. Baitu Samiti

1. Jalia, 2. Kapardi, 3. Bhadkha, 4. Bhurtia, 5. Madpura Bakhala, 6. Tunta, 7. Chhitar-ka-Par, 8. Bannara, 9. Baitu Chimanji, 10. Baitu Panji, 11. Baitu Bhimji, 12. Baitu Bhopji, 13. Kanod, 14. Jajwa, 15. Jhak, 16. Batadu, 17. Kosaria, 18. Kolu, 19. Bhmda, 20. Akdara, 21. Pannanda, 22. Ratn, 23. Kasimpala Bhatina, 24. Sawan Padamsingh, 25. Shahar, 26. Gida, 27. Hira-ki-Dhani, 28. Khohbar, 29. Sohda, 30. Khada Bharatsingh, 31. Paren, 32. Kunpalia, 33. Kharapar and 34. Sintre.

5. Shiv Samiti

1. Sundra, 2. Jaisinghar, 3. Tamlor, 4. Gadra Road, 5. Meisar, 6. Girab, 7. Jhankali, 8. Harsani, 9. Baleva, 10. Mungeria, 11. Shami-ka-Par, 12. Kotra, 13. Gunga, 14. Rajdal, 15. Arang, 16. Dandu, 17. Kashmir, 18. Niyad, 19. Mokha-padala, 20. Shiv and 21. Nimbala.

6. Sindhari Samiti

1. Shiver, 2. Kudla, 3. Chawa, 4. Rawatsar, 5. Nosar, 6. Seram Chimanji, 7. Banya Manji, 8. Dankha, 9. Sindhari, 10. Bhunka, 11. Sevanwala, 12. Gofai, 13. Kamtai, 14. Kharamahacha, 15. Koslu, 16. Poyala Khurd, 17. Juna Mita Khurd, 18. Dhanwa, 19. Nakhada, 20. Mohlu, 21. Khudasa, 22. Golla Jet Malan, 23. Sarali, 24. Band, 25. Chhohtu, 26. Adael, 27. Sanjhata, 28. Neewal Kot, 29. Odu, 30. Poyla Kala, 31. Sada and 32. Khadale.

7. Pachpadra Samiti

1. Pachpadra, 2. Mungda, 3. Asotra, 4. Kirnod, 5. Kanana, 6. Parlu, 7. Umarlai, 8. Gopadi, 9. Kalyanpura, 10. Doli Kalan, 11. Achrao Chohtan, 12. K. Krola, 13. Korna, 14. Sarwari, 15. Maudali, 16. Lob, 17. Patodi, 18. Simarkhia, Kalyan, 19. Badana Bjagir, 20. Jaga, 21. Bagawas, 22. Thumtali, 23. Kalewa, 24. Jasol, 25. Asada, 26. Tapra, 27. Tilwara, 28. Kaludi, 29. Sanjiali, 30. Chandesara and 31. Dudwa.

8. Siwana Samiti

1. Mitoda, 2. Podaru, 3. Pau, 4. Kundal, 5. Dharna, 6. Indana, 7. Thepan, 8. Guda, 9. Golia, 10. Dhira, 11. Bhagwa, 12. Ramkhia, 13. Mokalsar, 14. Devendri, 15. Siwana, 16. Kuship, 17. Maali, 18. Jetantri, 19. Bamsin, 20. Rakhi, 21. Kharadap, 22. Sawali, 23. Karmawas, 24. Sandari, 25. Ranibesipura, 26. Kotri, 27. Majhal, 28. Rampura and 29. Ajit.

The headquarters of the Pachpadra panchayat samiti is at Balotra. The Zila Parishad's office is at district headquarters.

Nyaya Panchayats

Under the former Act, Panchayats were given certain minor judicial powers. These powers have been taken away so that the local bodies may devote themselves to development work. However, for each group of five to seven panchayat circles nyaya (judicial) panchayat has been set up. These nyaya panchayats have been empowered to try certain minor criminal offences (specified in a schedule attached to the Act) and to impose fines not exceeding Rs. 50. In the event of non-payment, the matter is brought to the notice of the S.D.M. who makes recovery as in the case of fines imposed by himself. In civil cases, these panchayats have jurisdiction for the trial of 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 munsiff or Civil Judge having jurisdiction for action.

Steps were taken for the formation of 45 nyaya panchayats in this district in December 1960 and the first elections were completed in January, 1961. The set-up is as follows:—

Baitu Panchayat Samiti

Nyaya Panchayat	Panchayat circles covered
1. Baitu (Rly. Stn.)	1. Baitu Chimanji, 2. Baitu Panji, 3. Baitu Bhimji, 4. Baitu Bhopji, 5. Kolu, 6. Akadara, 7. Panavada.
2. Batadu	1. Ratn, 2. Jhak, 3. Batadu, 4. Kanod, 5. Shahr.
3. Bhadkha	1. Kapardi, 2. Bhadkha, 3. Jajwa, 4. Bannara, 5. Bhmda.

Nya a Panchayat		Panchayat circles covered	
Siwana Samiti			
1. Kuship	..	..	1. Indrana, 2. Thapan, 3. Guda, 4. Kuship, 5. Padardi Khurd.
2. Mokalsar	..	..	1. Mokalsar, 2. Ramania, 3. Dhiran, 4. Bhagwa, 5. Rakhi, 6. Khai dap.
3. Padru	..	..	1. Mithoda, 2. Padru, 3. Kundal, 4. Dharna, 5. Pan.
4. Samdari	..	..	1. Samdari, 2. Bamsin, 3. Karmawas, 4. Sewali, 5. Jethantari, 6. Ranidasipura.
5. Ajit	..	..	1. Ajit, 2. Rampura, 3. Majhal, 4. Kotari.
6. Siwana	..	..	1. Siwana, 2. Devandi, 3. Golia, 4. Meli.

CHAPTER XIV

EDUCATION AND CULTURE

Historical Background

Before the advent of western education, there were few people who could read and write. Education was, in fact, craft-orientated. In some of the temples, the Brahman children were taught the scriptures and the sons of petty chiefs and *jagirdars* learned the arts of war from special instructors. The only institutions which could properly be termed schools were the Marwari *poshals*, where the sons of the merchant and trading community learned the fundamentals of arithmetic and book-keeping.

These *poshals* or *pathshalas* were single-teacher institutions, the teacher (*guru*) being generally supported by donations in kind from the community; rarely, if ever did he receive payment in cash. Admissions were generally made on the occasion of the *Ganesh Chauth* festival, and it was customary to fete the *guru* on this day every year.

Female education was totally neglected, nor were there any facilities for sections of the community other than those stated above.

The first faint glimmerings of education on modern lines did not appear till after the upheaval of 1857; by 1868 two vernacular schools had been established by the Jodhpur Darbar at Barmer and Jasol, respectively where there were about 100 students. These were among the first to be set up in the entire princely State. For some 20 years these were the only schools in the area; then, in 1886-7, three more vernacular schools were established at Chohtan, Gura Mallani and Sindhari, respectively. Later, in 1898, an anglo-vernacular primary school was opened at Balotra.

The five schools in Mallani district, though opened by the Government, were left to depend on the support of the local public and the school at Sindhari was closed in 1893 when the *jagirdars* of that area withdrew their assistance. Possibly because of this, the four remaining State-opened schools were transferred to the charge of the Superintendent of Public Instruction in 1902-3. Meanwhile,

private schools had been opened at several places and the Darbar established two new schools at Siwana and Shiv, respectively.

Thus, in 1906, the following schools were in existence in the areas now forming Barmer district:—

DARBAR SCHOOLS		PRIVATE SCHOOLS	
Location	No. of pupils	Location	No. of pupils
Balotra (anglo-vernacular)	48	Balotra	50
Barmer	46	Barmer	90
Chohtan	30	Barmer	65
Gura Mallani	24	Chohtan	50
Jasol	35	Jasol	60
Siwana	87	Pachpadra	3
Shiv	12	Pachpadra	20

PRIVATE SCHOOLS	
Location	No. of pupils
Pachpadra (anglo-vernacular)	2

In receipt of State assistance.

Educational facilities were slowly improved during the first half of the present century, but actual figures for successive decades are not available as the annual Administration Reports of Jodhpur State do not give separate figures for the constituent districts. However, there is mention of a girls' lower middle school being opened at Balotra in 1928-9 and a girls' primary school at Barmer in 1931-32. The latter was raised to middle school standard in 1950-51.

Schools were generally opened by the Darbar on special occasions such as princely birthdays and marriages. In order to maintain a high standard of teaching, the educational authorities insisted that all teachers possess certificates of competency signed by an officer of the Department and that the ratio of pupils to teachers should not exceed 40:1. These instructions also applied to private schools.

By 1951, with the reorganization of educational facilities following the formation of Rajasthan, some of the district schools were upgraded. The middle schools at Barmer and Balotra were

raised to high school status and two primary schools at Barmer and Siwana became middle schools. There was also one middle school for girls at Barmer as well as girls' primary schools at Balotra, Pachpadra and Siwana. Only one school—at Pachpadra—was listed as a Vernacular primary school. There were in all 29 lower primary schools, at the following places: Barmer (3), Asada, Chohtan, Chuli, Dhorimana, Gura Mallani, Jasol, Ranigaon, Sindhari, Siyani, Balewa, Gunga, Asotra, Balotra (2), Kithod, Kanana, Pachpadra Salt Line, Parlu, Sarwari, Ajit, Guranal, Khandap, Mokalsar, Motisara, Rakhi and Samdari. Thus, in 1951, at the start of the first plan period, there were only 38 schools in the district serving a total population of more than 441,000.

GENERAL EDUCATION

During the first and second Plan periods educational facilities have been steadily expanded, though it was not till 1955 that the office of a Deputy Inspector of Schools was established at Barmer. This office was raised to an Inspectorate in 1957. The Inspector of Schools was at first assisted by a Deputy Inspector, who was incharge of the middle schools and five Sub-Deputy Inspectors, stationed at Barmer, Balotra, Chohtan, Siwana and Shiv, respectively, for the primary schools. On the formation of the Panchayat Samities in 1959, control of the primary schools, except seven schools in Barmer and Balotra towns, was entrusted to them. The posts of Sub-Deputy Inspectors were abolished and, instead, each samiti was given an Education Extension Officer to supervise the running of the schools. Thus, there are eight of these officers in the district. The Inspector of Schools and the Deputy Inspector are available to the samities as consultants and they also control the middle and high schools as well as seven primary schools in Barmer and Balotra which have not been handed over to the new local bodies.

The progress of education in recent years may be gauged from the following table showing the number of institutions:—

Type of Institution	1950-51	1956-57	1960-61
High School	2	2	3
Higher Secondary School	..	1	3
Middle School	2	16	25
Primary School	33	200	623

Primary Schools

The increase in the number of primary schools has been fairly rapid, especially since the Inspectorate was set up. Lack of suitable buildings is an obstacle to the setting up of new schools, as are the difficulties of communication in the interior and the shortage of qualified teachers.

Of the 425 primary schools in existence at the end of 1960-61, seven (five in Barmer and two in Balotra) were directly controlled by the Inspector of Schools, and the following numbers by the various panchayat samities.

Chohtan 51, Pachpadra 56, Siwana 58, Shiv 36, Barmer 62, Baitu 44, Sindhari 45 and Gura Mallani 66. These figures include three girls' primary schools at Pachpadra, Samdari and Siwana, respectively. Girls are also admitted to the other primary schools, but their total number is at present very small.

A total of 28 primary schools are run on basic school lines and 15 of these have facilities for teaching crafts.

The total number of teachers in the primary schools in 1960-61 was about 464 and the total enrolment in the neighbourhood of 14688.

Middle Schools

Within a period of 10 years the number of middle schools has risen from 3 to 25. Twenty-two of these are directly under the District Inspector of Schools and the remaining three, which are girls' schools, are controlled by the Deputy Inspectress of Schools, Jodhpur. The girls' schools are at Barmer, Balotra and Siwana and the others at the following places:—

Barmer (4), Gadra Road, Pachpadra, Jasol, Khandap, Mokalsar, Kotrij, Kanana, Baitu, Gura Mallani, Gunga, Bisala, Balotra, Karma-was, Parlu, Dhorimana, Ajit, Kawas and Ranigaon. The total number of students in the girls' middle schools is 957 and the number of teachers 32. The other middle schools have a sanctioned teaching strength of 185 and a total enrolment (1960-61 figures) of 6,644.

Higher Secondary and High Schools

In 1951, the district had two high schools, at Barmer and Balotra. The high school at Barmer has since been converted into a multi-purpose higher secondary school. A new high school has been opened at Siwana and higher secondary schools at Samdari and

Chohtan, respectively. In addition, there is an S.T.C. School (Teachers' Training Institution) at Siwana.

The total number of students attending these schools is 1422 and there are in all 86 teachers.

The two most important institutions are those at Barmer and Balotra. The Barmer school, originally a primary school, became a middle school in 1943 and was raised to high school status the following year. The building was enlarged in 1952-53 and again in 1955-56, when a new block was added. In August 1955 it became a multi-purpose higher secondary school. The school has a library with more than 3,800 books and well equipped science laboratories. Commerce is also taught.

The Balotra school came into existence in 1898 as an anglo-vernacular primary school. It was raised to middle school standard in 1931 and to a high school in 1951. Girl students are admitted to the school, which in 1960-61 had 287 students on the rolls. There is a library of more than 3,200 books and three hostels, one of them for backward class students who are not charged for board and lodging.

Apart from the Balotra hostels, boarding facilities for students coming from the villages have been provided at the following places—Barmer (2 boarding houses) Jasol, Khandap, Siwana, Gura Mallani, Samdari and Balotra. All these are recognised institutions. There are also two other boarding houses at Barmer and two at Balotra managed by Trusts. There are no boarding facilities for girl students.

Colleges

The district has no college; students desirous of higher education usually go to Jodhpur.

Private Schools

There is a total of 41 private schools (*poshals*) which are run on the same lines as government schools. Their total enrolment in 1960-61 was about 3,500. Some of them teach up to the higher secondary stage but most are primary schools.

Literacy

In the Census of 1901, in Jodhpur State 5.4 per cent of the population—10 per cent of the males and 0.3 per cent of the females—were returned as able to read and write and in respect of literacy

Jodhpur stood second among the 20 States and chief-ships of Rajasthan. No separate figures for the Mallani area were, of course, available in this and succeeding Censuses, so it is not possible to estimate with any degree of accuracy the extent of literacy in this area. However, as it lay in a remote and neglected part of the State and schools were fewer in number than in most other districts, it is safe to assume that the percentage was below the general average.

The slow growth of educational facilities over the first half of the century meant that little improvement could be registered in the sphere of literacy. Thus, in the Census of 1951, only 6.2 per cent of the population was found to be literate (able to read and write simple letters in any script). The percentage among males was 11 and among females only 0.66. Also, the percentage was much higher in the urban areas than in the rural areas, being 24.80 (males 43.40 and females 4.20) in the former as against 4.7 per cent (males 8.5 and females 0.37) in the villages. These figures do not include partial literates i.e., who can read but not write. Only five districts in Rajasthan had a lower percentage of literacy.

Educational Standards

In 1951 there were only 348 persons in the district (302 males and 46 females) who had passed the Middle School examination, matriculates numbered 182 (172 males and 10 females) 32, (30 males and 2 females) had passed the Intermediate examination and 31 (28 males and 3 females) were graduates. There were three post-graduates, eight qualified lawyers and only two qualified doctors. This shows the stage of education reached in individual cases, i.e., the matriculates are not included in the list of those having passed the Middle School examination.

The position will, of course, have greatly improved as a result of the rapid increase in the number of schools during the Plan periods, but the figures given underline the fact that, up to 1951, educational facilities were extremely inadequate.

Education of Girls

In the whole district there are only three girls' primary schools at Samdari, Siwana and Pachpadra and three middle schools at Barmer, Siwana and Balotra, respectively. The primary schools are under the control of the respective panchayat samities while the working of the middle schools is supervised by the Deputy Inspectors of Schools at Jodhpur.

The middle school at Barmer started its existence as a single teacher primary school about 1931 and was raised to middle school status in 1950-51. In 1960-61 it had 14 teachers and 400 students. The Balotra school was opened in 1928-9 and became a middle school in 1958. It has nine teachers and 326 students. The third middle school at Siwana, came into existence in 1930 as a primary school and was raised to a middle school in July 1959. It has nine teachers and 258 students.

Thus the facilities for the education of girls are very limited. In theory, girls are admitted to the ordinary schools but in practice few parents are taking advantages of this, so that progress in regard to girls' education is far from satisfactory. To induce parents to allow their girls to attend the village schools, there is a scheme in the third Plan to appoint "School Mothers" whose presence in the schools will, it is felt, reassure orthodox parents that special care will be taken of their children. Also in the third Plan are scholarship schemes for girls and provision for the construction of quarters for lady teachers who, in the absence of this facility, have been reluctant to accept village postings.

Education of Backward Classes

Children belonging to backward classes are admitted to all schools. Their number is small but growing. Scholarships to deserving students of these sections of the community are given through the agency of the Samaj Kalyan Vibhag.

Professional Schools

The only professional school in the district is a basic S.T.C. School (Teachers' Training School) at Siwana, which was set up in 1959-60. It has six teachers and 100 students on the rolls. All the students receive stipends. The institution is controlled by the District Inspector of Schools.

Social Education

Till quite recently the only organized social education activities in the district were in the block areas, where mobile vans moved from village to village showing educational films and arranging concerts and dramas with development themes. Several such shows are organized under the Government of India's Five Year Plan Publicity Programme.

It was not till 1958 that a Social Education Officer was appointed under the Inspector of Schools, charged with the task of

organizing youth, women's and children's club, starting adult literacy classes and undertaking allied social education activities. With the establishment of the new local bodies, two Education Organizers (a man and a woman) have been posted with each panchayat samiti to foster this movement. By the end of 1960-61, a total of 112 adult literacy centres had been started, 57 youth clubs, 19 children's clubs and 12 mahila mandals opened and 17 centres established for training rural youth leaders. There were 56 radio forums as well as 15 libraries and reading rooms established under the programme.

Thus, in a very short period considerable progress has been recorded in the sphere of social education, which is a very necessary adjunct to the programme of planned development.

CULTURE

Literature

For the chieftains and jagirdars of Mallani, encouragement of the arts was a luxury they could ill afford. Poets, novelists and musicians born in the area tended to gravitate to Jodhpur, where their gifts could be appreciated and duly rewarded. Hence in this area there is almost a complete lack of noted writers, artists and musicians. The only two names that stand out are those of the dingal poets, Ishwardas Barhat and Badridan Ahda. The former's best known work is "Hari Ras", which has a religious theme. He was born in the village of Bhadresh, eight miles from Barmer, and lived in the 16th century. Badridan Ahda wrote poems about Jagmal, Mallinath and Viramdeo, the brother of Mallinath. "Veermayan", in praise of Viramdeo, is regarded as his best work. It is not known in which century he lived.

Even today there is almost a complete lack of higher cultural activity and no society for the promotion of the arts exists. The rural areas, however, have their own folk literature and dances, which have been described in the chapter "The People".

Libraries & Museums

At Barmer there is a District Library as well as a Sarvajanik library. Balotra has three libraries. The Collectorate as well as several schools also have libraries. There is no museum.

CHAPTER XV

MEDICAL AND PUBLIC HEALTH SERVICES

EARLY HISTORY

Before the introduction of European methods of treatment, the practice of medicine in this area was principally in the hands of four classes of medical men. The most numerous were the *vaid's* or Hindu physicians, many of whom were extremely skilled in herbal remedies and followed the Ayurvedic system of medicine. Their practical knowledge as well as ancient texts were passed on from father to son. The *hakims* or Muslim physicians were mainly of the Unani school and here too the profession was hereditary. Some of these *hakims* are said to have come from as far off as Delhi. The third class was the *Pansaris* or *Attars*, who were prescribing chemists, and the fourth consisted of ascetics who claimed, by virtue of their great piety, to have power over disease and evil spirits. Their methods lay in incantations, charms and symbols.

Surgery had from ancient times been largely in the hands of barbers, but *Zurrahs* or Muslim surgeons were also practising in the 19th century and amputations were often performed by Rajput swordsmen, some of whom could cut through a limb with one sweep. The stump was generally immersed in boiling oil to prevent haemorrhage. Eye treatment was largely the preserve of the Marwar *Sathias* and those hailing from Sojat were much in demand for cataract operations.

The first dispensary on modern lines in the area was opened at Jasol in 1870. Lt. Col. Adams, Administrative Medical Officer in Rajputana at the time, states that in 1897 the dispensary treated 69 in-patients and 4,839 out-patients and that 289 operations were performed.

Another dispensary was opened at the Pachpadra salt station in January 1879. It was intended primarily for the benefit of the employees of the salt works but no member of the public was turned away. In 1897 the dispensary had a total of 67 in-patients and 1434

Longevity

A sample survey conducted during the 1951 Census showed that 48.5 per cent of the population were under 15 years of age, 30.6 per cent were between 15 and 34 years, 15.5 per cent between 35 and 54 years and only 5.4 per cent were above 55 years of age. In a population which is growing fast, it is inevitable that the percentage of those under 15 years of age should be large. However, the big drop after 34 years suggests that the expectation of life is rather low. One of the main reasons is undoubtedly the arid nature of most of the tract and its extremes of temperature. Life is extremely hard, especially in the sandy north and west of the district, and the people are engaged in a constant struggle for survival. Paradoxically enough, the rigours of the climate keep them relatively free from the common diseases while at the same time making them age rapidly.

The dwellers of the east, round the Luni, have less of a struggle for existence, but this is a malarious tract and the constitutions of the people have been undermined over the generations. Lt. Col. Adams, in his Medico-Topographical Account of the Western Rajputana States, published in 1900, states: "In years of heavy rainfall, when the river overflows its banks, the prevalence of (malaria) fever is so great, and it continues for so long into the cold weather, that I have frequently seen the entire population suffering more or less from its effects and hardly able to sow the wheat, although very little more than scattering the seed over the vast area fertilized by the silt carried down by the monsoon floods was required from the husbandman to produce an excellent crop".

The eradication of malaria and the extension of medical facilities generally would undoubtedly increase the expectation of life.

Common diseases

The following table shows the number of patients treated at the various hospitals and dispensaries for the more common diseases during 1960-61:—

Malaria	4,281
Tuberculosis	614
Dysentery	2,540
Infectious hepatitis	120
Influenza	137
Venereal Diseases	191
Small-pox	48
Cataract	161
Trachoma	480
Glaucoma	88

These figures are not comprehensive. Omitted are some respiratory diseases as bronchitis and pneumonia, which claim a large percentage of patients, as well as a long list of other ailments, separate figures for which are not available.

The most common diseases are those of the respiratory tract, their incidence being very high in the cold winter months, and malaria. The number of malaria cases rises steeply in years of good rainfall, particularly if there are floods in the Luni.

An anti-malarial unit, with headquarters at Jalore, has been operating in the district for some years under the National Malaria Control Programme. During the year under review a spleen survey was conducted in 30 villages and 4,947 children were examined. Also, a total of 31,413 houses were sprayed under the programme. Malaria patients accounted for 12 per cent of the total number of patients attending the various hospitals and dispensaries; no separate figures are to be had for those attending the ayurvedic *ausadhalyas* and, of course, large numbers of sufferers in villages away from the medical centres were unable to receive treatments. Since March 1960, the Control Programme has been replaced by the Malaria Eradication Programme. A Unit has been posted at Barmer with its sphere of operation comprising the districts of Barmer and Jaisalmer.

The anti-T.B. campaign is conducted through itinerant teams of B.C.G. vaccinators. In 1959-60 a total of 67,252 persons underwent the tuberculin test and 19,627 were vaccinated. In the vast, open spaces this disease is not very common, most of the cases reported being in the towns and especially among women who lead cloistered lives.

As may be expected in a sandy area where high winds blow for most of the year, eye diseases, particularly trachoma, are prevalent. The dependence of the people generally on unsafe drinking water supplies have given rise to numerous stomach and bowel complaints, dysentery and diarrhoea being very common. In Shiv tehsil, where in some places the only sources of drinking water are ponds, the people suffer much from guinea-worm and hepatitis.

Epidemics of measles, typhoid fever and chicken-pox are of occasional occurrence and there has, fortunately, been no major outbreak of cholera in recent years. Small-pox is an ever-present threat, but is being checked by a steady campaign of vaccination.

Teams of vaccinators, formerly attached to the hospitals and dispensaries, are now under the control of the panchayat samities, who send them wherever an outbreak is threatened. During 1959-60, a total of 9,519 vaccinations were recorded.

Two Health Inspectors have been posted in the district, one at Barmer and the other at Balotra. Their duty is to inspect food, ghee, sweets, etc. offered for public sale and to notify the health authorities in the event of a disease breaking out in epidemic form.

Infirmities

In the 1951 Census Reports, the following figures are given of persons suffering from major infirmities:—

Infirmity	Males	Females	Total
Blindness	230	210	440
Deaf-mutism	44	23	67
Insanity	48	27	75
Leprosy	11	3	14

There are no special institutions in the district catering for the needs of these groups of sufferers. Many of them are forced to take to begging for a livelihood.

HOSPITALS AND DISPENSARIES

Hospitals

There are only three hospitals in the district—one at Barmer, one at Balotra and the third at Pachpadra. The Barmer hospital, started as a dispensary in 1893, is under the control of a medical officer with the designation of Civil Assistant Surgeon (Class I). The hospital has a sanctioned staff of two other doctors, a staff nurse, midwife and two compounders. There are 24 beds for in-patients. There is a pathological laboratory which in 1959-60 carried out 241 examinations.

The Balotra hospital has a sanctioned staff of one doctor, a midwife and two compounders. It has nine beds. Neither of the hospitals has X-Ray facilities, so that serious cases of bone fracture have to be sent to Jodhpur.

The Salt Department of the Government of India had its own hospital at Pachpadra for the benefit of employees of the salt works. On April 1st, 1960, the Salt Department was taken over by Rajasthan Government and since then, the Salt Department has control over this hospital. The Directorate of Medical and Health Services has not yet taken over this hospital. At present the staff consists of a compounder, a ward-boy and a midwife. The Medical Officer, from Pachpadra city makes periodical visits.

Dispensaries

These have been set up at the following places:—

Barmer (3)

The R.A.C. dispensary at Barmer has one doctor and a compounder and a second dispensary at the Police Lines is under the charge of a compounder. The doctor posted at the R.A.C. dispensary is also in-charge of a dispensary for check-post staff at Barmer.

Siwana

This dispensary has a doctor, a compounder and a midwife. There are six beds. It was established in September 1950.

Pachpadra

The staff here comprises a doctor, a dai and a compounder. The dispensary was established only in August 1955.

Primary Health Centres

The district has only five primary health centres. These are as follows:—

Gunga

The sanctioned staff here consists of two doctors, four midwives, a health visitor, a sanitary inspector, an auxiliary health worker and five compounders.

Samdari

There is a doctor assisted by a compounder and four midwives.

Mandal

The sanctioned strength is the same as in the case of the Samdari centre.

A fourth primary health centre is being set up at Gura Mallani. There has been some difficulty in recruiting staff for these centres; in

April, 1961 all the posts of midwives were lying vacant and the Samdari dispensary had no doctor and that at Gunga only one. Posts were also lying vacant in the other categories of staff.

Aid Posts

In April, 1961 two aid posts were in existence at Bhakasar and Shiv, each in the charge of a compounder.

Other Institutions

Maternity and child welfare centres have been set up at Barmer and Balotra, each with a staff consisting of a health visitor and midwife. At Barmer there is also an anti-rabic centre and a family planning centre.

All the above named hospitals, dispensaries and other institutions are under the control of a District Medical and Health Officer stationed at Jalore.

The following table shows the total number of in-patients and out-patients treated in the hospitals and dispensaries of the district during selected years of the period 1950-60:—

Year	In-patients	Out-patients
1961	246	1,08,526
1955	388	70,093
1958	422	75,751
1960	583	1,01,167

In 1959, the latest year for which figures are available, the daily average out-door attendance at the Barmer hospital was 273, at the Balotra hospital 155, at the Siwana dispensary 92, at Pachpadra 84 and at the Shiv dispensary 8. It is interesting in this connection to compare these attendance figures with those for the Jasol (later Balotra) and Barmer dispensaries in the first three decades of the century. In 1905-06, the Jasol dispensary had an average daily out-door attendance of 47.46 and that at Barmer 47.28. In 1915-16, when the Jasol dispensary was transferred to Balotra, the attendance at the new site was 30.81 and that at the Barmer dispensary 56.30. The figures for 1920-21 were 30.42 and 57.11, respectively, and in 1930-31 they were 35.5 and 46.30 respectively.

In the past decade, attendance at the hospitals has fluctuated from year to year, noticeably increasing in seasons of exceptional heat or cold or failure of the scanty monsoon.

CENTRAL GOVERNMENT INSTITUTIONS

Railway Dispensary

There are two dispensaries, one at Barmer and the other at Samdari, solely for railway employees and their families. The Samdari dispensary is in the charge of an Assistant Surgeon; that at Barmer has a staff comprising an Assistant Surgeon, compounder, nurse, dai and dresser. The dispensaries are small and deal only with ordinary illnesses. Serious cases are sent to Jodhpur. The jurisdiction of the Barmer dispensary is from Barmer to Munabao stations; all stations on the main line from Ajit to Utarlai, and also those on the Pachpadra branch line, come under the Samdari dispensary. A medical van visits each station once a week. In case of emergency, the doctor travels by trolley if no train is running at the time.

These two dispensaries treated a total of 10,404 cases in 1958, 11,463 case in 1959 and 10,337 cases in 1960.

INDIGENOUS SYSTEM OF MEDICINE

In 1943-44, the then State of Jodhpur extended government patronage to certain ayurvedic *ausdhalyas*. Thus, in 1952-53, there were six of these institutions located at Pachpadra, Patodi, Samdari, Mokalsar, Balotra and Jasol, respectively. By April 1961, the number had risen to 21, each in the charge of a qualified *vaidya*. The work of the *ausdhalyas* is supervised by an Ayurvedic Inspector with headquarters at Jodhpur. The location of these institutions, and the number of patients treated in each in 1960-61 is as follows:—

Location	Tehsil	Patients treated
Barmer	Barmer	1,485
Jasol	Barmer	9,120
Asada	Barmer	8,062
Pachpadra	Pachpadra	9,960
Patodi	Pachpadra	..
Mokalsar	Siwana	9,996
Samdari	Siwana	11,436
Khandap	Siwana	6,408
Kotada	Sheo	2,568
Kalyanpura	Pachpadra	3,204
Chohtan	Chohtan	9,840
Gura Mallani	Barmer	7,884
Gadra Road	Sheo	9,804
Sindhari	Barmer	3,100
Rakhi	Siwana	8,848

Harsani	Shoo	3,972
Bisala	Barmer	13,956
Dhorimana	Barmer	17,592
Baitu	Barmer	328
Kawas	Barmer	588
Balotra	Pachpadra	1,124

Summary of Medical Facilities

At the time of the Census of 1951, there were only eight registered medical practitioners and 11 *vaidyas*, 1 midwife and 1 nurse in the district. While figures for the 1961 Census are not yet available, the position does not appear to have greatly improved, and the percentage of doctors to total population is less than 2:100,000. Though the population is sparse, the area of the district is vast and shortage of medical facilities is acutely felt. The position is not so bad in the towns and along the railway route generally, but in the remote villages the people have no proper medical facilities, allopathic or indigenous, and rely on the *Bhopas*, *Sadhs* and other exponents of age-old remedies which are ineffective in most cases and often aggravate the condition of the sick.

Fortunately, the people of a desert area have strong constitutions as a result of the constant struggle for existence. The scattered nature of the population, also, has made it easier for the authorities to check the spread of epidemics.

Research Centres

There are no medical and public health research centres in the district and the only institution which disseminates knowledge on health is the family planning centre at Barmer.

SANITATION

In the rural areas, where water is scarce and infinitely precious, the climate very dry and healthy and the average number of houses in a village small, sanitary conditions are far better than in the wetter and less sparsely populated parts of the State.

Before the formation of the present district, only in the municipal towns of Barmer and Balotra was much attention paid to sanitation, but in recent years, under the community development programme, efforts have been made in certain areas to improve drinking water supply and to keep the streets free from garbage.

Main Activities

The activities of the two municipalities in the sphere of sanitation are described in detail in the chapter on Local Self-Government. Some of the more important aspects may, however, be mentioned here.

A post of Sanitary Inspector under the Barmer municipality was created in 1948-49. He is responsible for the general cleanliness of the town. The Inspector at present employs 67 sweepers, who are distributed among the four wards of the municipal area, the work in each ward being supervised by a Jamadar. A similar arrangement exists in Balotra town.

Piped water supply is available only at Barmer and Balotra. The water is filtered but not chlorinated and supply is restricted to two hours in the morning and two hours in the evening. Elsewhere, steps have been taken to improve water supply by disinfecting wells, and, in some cases, covering them. However, in a very large number of villages, the people are glad enough to drink from any source of supply, provided it is not too unpleasant to the taste and, the shortage being so acute, men and animals often drink from the same source.

The health authorities make elaborate arrangements for water supply and sanitation at the Tilwara cattle fair every year in order to check the outbreak of any disease in epidemic form. The task of providing such arrangements at other fairs and melas has been entrusted to the panchayat samities.

CHAPTER XVI

SOCIAL WELFARE AND PUBLIC LIFE

SOCIAL WELFARE

Labour Welfare

As there is no large industry in the district, the various labour laws relating to working conditions, wages, provident fund and insurance, accident, sickness and maternity benefits, etc., have no application. It has been left to private employers to provide such amenities as they think fit, and as many employers in the small industrial units are running their enterprises on a near-marginal basis the tendency to exploit labour is, perhaps, inevitable. The only exception is in the case of the Pachpadra Salt Works which, being under the management of the Government of Rajasthan, pays higher wages and provides better working conditions and amenities such as rest sheds etc.

Until there is more of industrialization, which will bring labour legislation into force, little can be done in the sphere of labour welfare except through individual effort by employers.

Prohibition

Apart from drinking in public, there is no restriction on the consumption of liquor. There is no shop in the area selling foreign-type wines and spirits; a total of 16 shops sell country liquor. There are also 89 licensed shops for the sale of opium and three shops sell hemp drugs. The following table shows the extent of the consumption of intoxicants in the district from 1955-56 to 1960-61:—

(Figures in maunds, seers & chhataks)

Year	Country liquor (in gallons of L.P.)	Opium	Bhang	Ganja
1955-56	6,582.3	82-15-0	21-20-0	1-3-8
1956-57	8,460.9	42-26-0	24-25-0	1-6-8
1957-58	9,912.7	20-9-8	17-10-0	0-20-8
1958-59	8,914.25	18-20-8	24-5-0	1-17-0
1959-60	9,637.56	4-23-2 1 4	21-0-0	..
1960-61	8,976.90	0-38-3	20-0-0	..

(Up to February, 1961)

While the consumption of liquor has remained more or less steady, that of opium has dwindled considerably because of severe restrictions on sale. *Charas* is no longer consumed and *ganja* is now not sold openly. The consumption of *bhang* has remained fairly constant. Because of restrictions on the sale of opium and other drugs, there is a black market in these commodities, though fortunately not on a large scale. It has also not been possible to check completely the illicit distillation of liquor.

Backward Classes

No area in this district has been notified as a scheduled tribal area. However, in the Census of 1951, the total number of persons belonging to the Scheduled Castes and Tribes was given as 10,375 or about 2.3 per cent of the total population; the number will by now have considerably increased. The backward classes here suffer from the same disabilities as in other parts of the country.

Departmental activities

The Social Welfare Department of the State Government has posted an Inspector in the district to implement certain welfare schemes for these classes. The following schemes were undertaken during the first and second Plan periods:—

Scheme	First Plan	Second Plan
1. Sanskar Kendra	1	..
2. Social Education Centres	3	..
3. Subsidy to Gadia Lohars for house construction	Rs. 3,000 to 10 families	Rs. 12,600 to 36 families
4. Subsidy to Bhils @ Rs. 250/- per family for house construction	..	Rs. 6,500
5. Scholarships and other aid to Scheduled Castes	Rs. 700	Rs. 4,145
6. Light and Water facilities for Scheduled Castes	Rs. 11,800	Rs. 3,100

There is a hostel at Balotra for students belonging to the backward classes where all expenses are borne by the Government. Students belonging to non-backward classes are also permitted to stay in the hostel when accommodation is available but they have to pay for board and lodging.

Social Welfare Board

The Rajasthan State Social Welfare Board also has opened a Welfare Extension Project in the district. It is located in the town

of Balotra. There are 14 members (ten men and four women) on the governing body. The project, which was inaugurated in April, 1959 has units at Patodi, Pachpadra, Parlu, Jasol, Asora and Kalyanpura and covers a population of 37,600 in 40 villages. The field staff comprises four women village level workers (*gram sevikas*) and a craft instructress (*udyog shikshika*) with a supervisor (*mukhya sevika*) in charge. There is at present no Social Welfare Extension Officer as in most projects run by the Board. Each unit has a children's park, craft centre, social education centre and health centre. Cultural performances are also organized.

The number of persons benefitted through the various schemes is as follows:—

Children's Park	24
Craft Centres	20
Social Education	11
Health Services	20
Cultural Shows	22

Voluntary Organizations

There is almost a total lack of voluntary social service organizations. In some villages there are educational institutions called *poshals* which teach Hindi, the *mahajani* method of keeping accounts and also impart religious instruction. These, however, are not social service organizations in the true sense as admission is restricted and fees usually charged. Mention may also be made of private *dharamshalas* in several towns and big villages where travellers can obtain the basic amenities. The Social Welfare Board has a scheme of assistance to deserving private welfare organizations, but no such organization of stature sufficient to attract the attention of the Board exists in the district.

Red Cross Society

A branch of the Rajasthan Red Cross Society was established at Barmer on December 5, 1954 with 14 nominated members. Later, as the organization grew in strength and popularity, more members were enrolled and office-bearers elected. The main activities of the Society are attention to the sick and aid to victims of natural calamities. In the hospitals, milk and medicines are given to patients and toys to sick children. During time of famine, the Society sets up aid posts along the routes taken by emigrants and also assists them on their return.

Bharat Sevak Samaj.—There is a branch of the Bharat Sevak Samaj which organizes sanitation drives, *shramdan* and youth camps and other activities aimed at inculcating a better sense of corporate living and citizenship.

PUBLIC LIFE

Elections

Lok Sabha.—In the 1952 General Elections, Barmer and Jalore districts formed a single parliamentary constituency. In a total electorate of 3,69,470, a total of 1,28,092 (35.4 per cent) valid votes were cast. The seat was won by an Independent candidate, Shri Bhawani Singh, with 81,546 votes. Shri Poonam Chand Vishnoi (Congress) secured 37,053 votes and Shri Hukum Singh (Independent) 9,493.

In the second General Elections in 1957, the parliamentary constituency for this area was re-formed to comprise Barmer and Jaisalmer districts plus Phalodi and Shergarh tehsil and some constituencies of Jodhpur district. In a total electorate of 5,17,679, of 4,06,090, the number of valid votes cast was 1,31,018 or 32.2 per cent. There were only two candidates for the single seat, which was won by Shri Raghunath Singh (Independent) with 79,317 votes (60.5 per cent). The losing candidate was Shri Gordhan Das Binani (Congress).

In the third General Elections in 1962, the parliamentary constituency comprised eight assembly constituencies, five in this district plus the Jaisalmer constituency and the Shergarh and Phalodi constituencies of Jodhpur district. In a total electorate of 5,17,679, the number of valid votes cast was 1,93,451 or 38 per cent, which represented a rise of 5.8 per cent over the 32.2 per cent valid votes polled during the 1957 elections. There were three candidates for the seat, which was won by Shri Tan Singh (Ram Rajya Parishad) with 1,00,395 votes. Shri Onkar Singh (Congress) secured 82,684 votes while the third candidate, Shri Haqiqat-ullah Khan (Independent), received only 10,372 votes and lost his deposit.

Vidhan Sabha.—In the 1952 State Assembly elections, the district had four constituencies, viz., Barmer A, Barmer B, Barmer C and Siwana.

In the Barmer A Constituency, which comprised the areas covered by Barmer and Girian police stations, there was a total electorate of 41,785. The number of valid votes cast was 16,461

(36.3 per cent). Five candidates contested the seat, which was won by Shri Tan Singh (Ram Rajya Parishad) with 8,327 votes. His closest rival was Shri Birdi Chand (Congress) who secured 6,672 votes. The three Independent candidates—Shri Riju Mal, Shri Hukum Singh and Shri Durga secured 384, 477 and 601 votes, respectively, and lost their deposits.

The Barmer B constituency comprised the whole of Shiv tehsil and those portions of Barmer tehsil which were not included in the A and C constituencies. Out of 49,382 voters, 12,289 (24.88 per cent), cast valid votes. There were only two candidates, both of them independents. Shri Nathu Singh, with 6,211 votes, won narrowly from Shri Padam Singh, who secured 6,078 votes.

Barmer C constituency comprised the Jasol, Sindhari and Gura Mallani police station areas and Koliyana and Bhanja villages of the Chohtan police station area of Barmer tehsil. The total electorate was 42,633 and the valid votes cast 13,643 (32 per cent). In a triangular contest, an independent candidate, Shri Madhu Singh won, securing 7,884 votes. Another independent candidate, Shri Bhagwan Das, secured only 824 votes and lost his deposit, the third candidate, Shri Ram Dan (Congress) secured 4,935 votes.

The fourth constituency, Siwana, had 54,184 voters. The number of valid votes cast was 19,223 (35.47 per cent). Shri Mota Ram (Ram Rajya Parishad) secured 14,095 votes and was declared elected. Shri Nand Kishore (Congress) with 2,762 votes and Shri Hasti Mal (Jan Sangh) with 2,366 votes lost their deposits.

In these assembly elections there were in all 13 candidates for four seats. Independents (7) formed the largest group of candidates, followed by the Congress (3), Ram Rajya Parishad (2) and Jan Sangh (1).

1957 Elections:—In 1957, the constituencies in the district were rearranged as follow: Barmer (one seat), Balotra (two, one reserved for the Scheduled Castes), and Gura Mallani and Chohtan one each, making total of five seats.

In the Barmer constituency, in an electorate of 48,651, 17,022 (35 per cent) valid votes were cast. There were four candidates. Shri Tan Singh (Ram Rajya Parishad) retained the seat with an increased majority, securing 9,866 votes, or 58.3 per cent of the total. He was followed by Shrimati Rukmani (Congress) with 5,507 votes, Shri Jetha Ram (Independent) with 1,151 and Shri Achal Ram

(Independent) with 498 votes. The two independents lost their deposits.

In Gura Mallani, where the total electorate was 50,902, 14,247 valid votes were polled (28 per cent). Shri Ram Dan (Congress) was successful with 6,712 (47.1 per cent) votes. The other candidates were Shri Dalla (Independent) who secured 1,385 votes, Shri Dhima (Independent) 1,169 votes and Shri Babu (Ram Rajya Parishad) 4,981 votes. Shri Dalla and Shri Dheema lost their deposits.

The Chohtan seat was contested by three candidates. In an electorate of 49,621, 17,084 (35 per cent) valid votes were cast. Shri Vali Mohammad (Congress) secured 9,315 votes (54.5 per cent) and won the seat. Shri Nathu Singh (Ram Rajya Parishad) secured 7,087 and Shri Veerma (Independent) 682 votes. Shri Veerma lost his deposit.

In the Balotra double-member constituency, with a total electorate of 94,699, the number of valid votes cast was 54,280 (32.7 per cent). Shri Anoop Singh (Ram Rajya Parishad) won the general seat with 11,719 votes (21.6 per cent) and the seat reserved for scheduled caste candidates went to Shri Rawat (Congress) with 9,012 (16.6 per cent) votes. The other candidates were Shri Dev Raj (Congress) 8,771 votes, Shri Misri Mal (Jan Sangh) 3,689 votes, Shri Mota Ram (Independent) 11,161 votes, Shri Lakshman Das (Ram Rajya Parishad) 8,689 votes and Shri Sanwal Das (Independent) 1,239 votes. Shri Misri Mal and Shri Sanwal Das lost their deposits.

In the 1957 elections, the five seats were contested by 18 candidates, of whom seven were Independents, five from the Congress, five from the Ram Rajya Parishad and one from the Jan Sangh party.

In the third general elections (1962) the double-member constituency of Balotra was reconstituted into a single-member constituency and an additional constituency was created. Thus, while the number of seats remained at five, the number of constituencies rose from four to five. These constituencies were: Siwana, Pachpadra, Barmer, Gura Mallani and Chohtan.

In the Barmer constituency, in an electorate of 63,502, 26,320 (44 per cent) valid votes were cast. There were three candidates. The seat was won by an independent candidate, Shri Umed Singh, with 13,254 votes. He was followed by Shri Viridi Chand (Congress) with 11,936 votes and Shri Jodha Ram, an independent, who secured 1,130 votes and lost his deposit.

In Gura Mallani, where the total electorate was 67,261, 21,809 (or 35 per cent) valid votes were polled. Shri Ganga Ram (Congress) was successful with 11,577 votes. All the other candidates were independents and the votes secured by them were: Shri Dharmendra Singh (4,934), Shri Bachoo (5,005) and Shri Likhmi Chand (293). The last candidate lost his deposit.

The Chohtan seat was contested by four candidates. In an electorate of 61,795, 23,181 (39.1 per cent) valid votes were cast. Shri Fateh Singh (Ram Rajya Parishad) won the seat, securing 12,076 votes. Shri Ahmad Bux (Congress) secured 9,890 votes and Shri Veerma and Shri Abdul Rahman (Independent) 234 and 981 votes, respectively. The last two candidates lost their deposits.

In the Siwana Constituency, in a total electorate of 57,833, the number of valid votes cast was 16,371 (30.8 per cent). Shri Hari Ram (Congress) won the seat with 5,863 votes. The other candidates were Shri Rawat Ram (Independent) with 4,856 votes, Shri Laxman Das (Ram Rajya Parishad) with 4,453 votes, Shri Poonam Chand (Jan Sangh) with 1,019 votes, and Shri Kalu (Independent) with 180. The last two candidates lost their deposits.

The Pachpadra constituency had an electorate of 71,544 and 31,683 valid votes (47.12 per cent) were cast. Three candidates, including a woman, contested the seat which was won by an independent candidate, Shri Amar Singh, who secured 15,673 votes. Shrimati Madan Kaur (Congress) who incidentally was the only woman to contest a seat in the whole district, secured 13,179 votes. The third candidate Shri Tej Singh (Independent) received 2,831 votes and lost his deposit.

Political Parties

Only about one-third of the electorate went to the polls in the 1952 and 1957 elections. However, in the 1962 elections electoral participation rose to 37.7 per cent. This may be taken as an indication of the growth of political consciousness.

Only two of the political parties have established offices in the district, rest operate from the homes of their leaders. The Indian National Congress has an office at Barmer and the Jan Sangh at Balotra.

In all the three elections the parliamentary seat was contested unsuccessfully by the Congress. In 1952 and 1957, independents won

this seat and in 1962, it was won by Shri Tan Singh—a Ram Rajya Parishad candidate.

In the Vidhan Sabha elections of 1952, Congress failed to secure a single seat though it put up candidates for three of the four seats. Two seats were won by Ram Rajya Parishad and two by independents. Jan Sangh contested only one seat and failed to secure it. Thus independents, with a parliamentary seat and two assembly seats, did better than organized political parties.

In the 1957 elections to the Vidhan Sabha, the Congress were more successful, winning three of the five seats contested. The Ram Rajya Parishad again won two seats, but three of their candidates were defeated. The Jan Sangh again contested only one seat and failed to win it. A feature of the 1957 assembly elections was the decline of the independents, none of whom won a seat. This suggests that, although attendance at the polls was no better than in 1952, party organization had strengthened in the meanwhile.

In the 1962 elections, the five seats were contested by 19 candidates as against 18 in the 1957 elections. Of these, independents numbered 11 (seven in 1957) again forming the largest group among the contestants. The Jan Sangh again put up only one candidate and the Congress party contested all five seats as it had done during the previous elections. The Ram Rajya Parishad, which had put up candidates for all the seats in 1957, contested only two this time. Judging the party position by the number of seats won it would seem that the Congress has not been able to maintain the gains it made in 1957 as only two of its five candidates (40 per cent) were returned and the Ram Rajya Parishad won back some of the ground lost. The position of the Jan Sangh, however, remains unaltered; it contested only one seat and again lost. The independents eclipsed in 1957, have made a re-entry into the arena with two gains.

The number of seats won, however, does not give the correct impression of the swing in the fortunes of the political parties. The number of votes secured is more significant. Even though only 40 per cent of the Congress candidates succeeded (as against 60 per cent in 1957) the percentage of votes secured has increased by 5.6 since then and the total increase since the first elections has been 20.6 per cent. Similarly the Ram Rajya Parishad with 50 per cent successful candidates (40 per cent in 1957) has in fact lost public favour by 27.4 per cent and even after condoning the 4.8 per cent gain it made in 1957 over the 1952 performance, the net loss since 1952 stands at 22.6

per cent. The Jan Sangh lost 2.7 per cent votes from its meagre share of 3.6 in 1957. Having lost 0.2 per cent earlier in 1957, its total share now stands at 0.9 per cent. The 1962 elections brought a resurgence of independent candidates all of whom were defeated in the previous elections. The success of two out of 11 perhaps does not seem so spectacular but their gain over the 1957 figures has been of the order of 24.5 per cent, which has been enough to wipe off the 19.6 per cent loss suffered in 1957 and give them a net gain of 4.9 per cent since 1952. The following table illustrates party position through the decade since general elections were held for the first time.

% share of votes						
Party	1952	1957	Difference between col. 2 & 3	1962	Difference between col. 3 & 5	Difference between col. 2 & 5
1	2	3	4	5	6	7
R R P ..	36.5	41.3	+4.8	13.9	-27.4	-22.6
Congress ..	23.3	38.3	+15.0	43.9	+5.6	+20.6
Jan Sangh ..	3.8	3.6	-0.2	0.9	-2.7	-2.9
Independent ..	36.4	16.8	-19.6	41.3	+24.5	+4.9

Vote and Women.—There has been some rise in the political consciousness among the female voters in the district. This is evident from the fact that while in 1957 only 17.1 per cent female voters cast their votes, this percentage rose to 21.4 in the 1962 elections. The constituency-wise figures for the second and third general elections are shown in the table below:—

% attendance of female voters			
Constituency	1957	Constituency	1962
Chohtan ..	14.7	Siwana	14.5
Barmer ..	23.9	Pachpadra	33.1
Balotra ..	20.5	Gura Mallani	10.3
Gura Mallani ..	6.3	Barmer	28.4
		Chohtan	16.7

Even though there is no infallible method to prove it, the above figures suggest that the presence of a woman candidate in the field is a factor in bringing out more female voters. In 1957 the highest

percentage of female votes were recorded in Barmer constituency where there was a woman candidate and so also in 1962 the presence of a lady contestant in Pachpadra constituency helped it record as much 33.1 per cent female votes.

Newspapers

Not a single newspaper is published locally, but regional newspapers in Hindi, Urdu and Sindhi and also some of the all-India dailies are sold in Barmer, Balotra and other places along the railway route, whence copies find their way into the interior. The total circulation of all dailies is probably not more than 500 and because the district is off the beaten track, as it were, most newspapers are delivered two to three days late.

The main daily papers circulated are the *Rashtra Doot* and *Lok Vani* (Jaipur), *Hindustan* and *Veer Arjun* (Delhi)—all Hindi papers—*Pratap* (Delhi) in Urdu, *Hindusthan* (Bombay) and *Hindu* (Ajmer) in Sindhi and a few copies each of such all-India English dailies as the *Hindustan Times* and *Times of India*.

The following weekly papers are also fairly popular: *Jagriti* (Bombay), *Rajasthan Shikshak* (Jodhpur), *Udaipath* (Jodhpur), *Lalkar* (Jodhpur), *Senani* (Bikaner), *Gram Raj* (Jaipur), *Iwala* (Jaipur), *Dharmyug* (Bombay), *Yojna*, fortnightly, (Delhi), *Saptahik Hindusthan* (New Delhi)—all in Hindi—*Hindvasi* (Bombay) and *Matrabhoomi* (Bombay) in Sindhi, *Rajasthan Gazette* (Jaipur) in English and Hindi and the *Illustrated Weekly of India* (Bombay) in English.

CHAPTER XVII

PLACES OF INTEREST

Ba'otra

A sub-divisional headquarters and headquarters of the District and Sessions Judge, this town, one of the only two in the district, is situated on the right bank of the Luni at latitude $25^{\circ} 50'$ north and longitude $72^{\circ} 15'$ east. It is about seven miles from Pachpadra, 60 miles from Barmer and 70 miles from Jodhpur by rail. The town is built on a sand-hill. It has had a municipality since 1915 and is a thriving town with the usual amenities of schools, hospitals, etc. It is chiefly noted for the manufacture of dyed and stamped cloths. The population in 1901 was 5,118 which had risen to 9,637 by 1951 and to 12,112 in 1961. Just across the river is the old village of Jasol. Tilwara, where an important fair is held every year in March, is 10 miles to the west.

Barmer

Barmer used to be one of the principal estates in Mallani, consisting of 66 villages held by five different families, all descended from Mallinath and known respectively as *Raotani* (first in rank), *Sahibani*, *Kishnani*, *Pophani* and *Khimani*. The Thakurs all resided in the town, which is now the headquarters of the district. It is situated at latitude $25^{\circ} 45'$ north and longitude $71^{\circ} 23'$ east on the Luni-Munabao section of the Northern Railway, 130 miles from Jodhpur by rail. The population which in 1901 was 6,064, rose to 20,812 in 1951 and still further to 27,601 in 1961. The present town was founded by Rawat Bhimaji but the date is not known. It is built on the side of a rocky hill, on the summit of which are the remains of an old fort. It possesses an ancient temple dedicated to Balarikh (the sun), the idol in which is of wood. The stone of the hill is largely used for building and roofing purposes. To the north-west are the ruins of Juna or Juna Barmer, an old town which appears to have had a very large fort, of which only portions of the ramparts remain. The remains of three Jain temples lie at a distance of about two miles to the south, and one of the pillars of the hall of the largest of these, bears an

inscription dated 1295 A.D. mentioning a Maharajkula Sri Samanta Sinhadeva as ruling at Bahadameru.

Much of Barmer's present importance is due to the fact that almost all the district offices are located here. There is little of interest to see in the town itself and in the summer months life can be rather unpleasant due to the heat and sandstorms and the shortage of water.

Chohtan

This village which is the headquarters of the tehsil of the same name, lies at the foot of a hill 2,154 ft. above sea level at latitude $25^{\circ} 26'$ north and longitude $71^{\circ} 72'$ east, about 30 miles south-west of Barmer. Half-way up the hill are the remains of three Saivite temples. The first, which has evidently been re-built, consists of a shrine, a hall and two porches; there are three or four inscriptions on the pillars of the hall, but they are all modern except one which dates to the 14th century and refers to a chieftain named Kanhadeva. Close by, to the north, is a small but interesting shrine dedicated to *Lakhlisa* whose head, canopied by a sevenhooded cobra, appears on the door. The pillars and spire are said to date back to the 11th century, and an inscription dated 1308 A.D. tells of repairs carried out by Sri Dharamarasi, a pupil of Sri Uttamarasi. The third temple is of about the same age as the second. It has three porches but the spire and the roofs of the hall and porches are no longer present. On the dedicatory block of the shrine door is a curious piece of sculpture, which perhaps represents an ornamental *lingam*, flanked by a man on one side and a woman on the other, each in the act of decking it with a garland. Above are depictions of Siva in the middle, Brahma to the right and Vishnu to the left.

In a valley between two of the hillocks near Chohtan is a sacred pond called Kapaltirth and also a Shiv temple of Kapaleshwar which is now in ruins but was apparently once an imposing structure. A mile beyond Kapaleshwar, up in the hills, is a spot called Bishan-pagaliya where a stone with foot-prints on it is worshipped, the prints being said to be those of Vishnu. In this connection a fair called Kapaleshwar Bishan-pagaliya is held every year on Somvati Amavasya, i.e., whenever the fourteenth day of the waning moon falls on a Monday.

Jasol

This was one of the principal estates in Mallani, consisting of 72 villages held by two families claiming descent from Mallinath; the

representative of one had the title of Rawal and the other that of Thakur. The village of Jasol is situated on the left bank of the Luni on the slope of a hill, 25°49' north latitude and 72°13' east longitude, about eight miles to the south west of Pachpadra, 60 miles from Barmer and across the river from Balotra.

The village is a very ancient one but the present name appears to have been assigned by the Jasolia Rajputs, one of the Rathor sub-clans, when they settled here.

About five miles to the north-west are the ruins of Kher or Khed, the old capital of Mallani and one of the first conquests of the Rathors, while to the south-west are the remains of the once important town of Mewa Nagar. As these places decayed, Jasol rose in importance and still has the descendants of some of the earliest Rathor settlers. The importance of the place dwindled considerably with the growth of Balotra on the railway line. According to the Census of same pillar dated V.S. 1210 (1153 A.D.) speaks of one Vijaya Siha as manufacture of carpets made of goat hair.

A Persian school was established in S.V. 1836 (1779 A.D.). It was later taken over by the Government, but in 1926, when the jagirdars refused to pay the working expenses, it was abolished.

There are two important temples, one Hindu and one Jain. The Hindu temple is built of old materials, one of the sculptures having been brought from Khed and originally belonging to a Jain temple of Mahavir. The inscription on it bears the date S.V. 1246 (1189 A.D.) and records the gift of two images of Sambhava, the third tirthankar by Soniga, son of Sahadeva. Another inscription on the same pillar dated V.S. 1210 (1153 A.D.) speaks of one Vijaya Siha as having made a grant of a village.

The Jain temple is called Dadadera. It has an inscription dated V.S. 1689 (1632 A.D.) referring to a chieftain named Rahul Shri Viram Deoji.

Khed

Historically, this village is of great importance as it is claimed to be the cradle of the Rathor race in the west. Here, in the beginning of the 13th century, Rao Sihaji and his son Asthanji, having conquered Khed and the adjoining tract called Mewo from the Gohel Rajputs, planted the standard of the Rathors.

There is now little trace of the former glory. One of the few structures of interest left is an old Vishnu temple of Ranachhodaji, which is surrounded by mouldering walls. An ancient inscription is too blurred to read but it bears the date S. 1135 (1078 A.D.). It can only be conjectured as to whether this is the date of the building of the temple or whether the inscription commemorates some chieftain or event in which case the temple would be of an earlier date. On the gate is an image of *Garuda* (the eagle). Nearby are temples of Brahma (such temples are very rare) and Bhairav. There is also a temple of Mahadev dating back to about the 12th century and a Jain temple.

Kiradu

This is a place near the village of Hathma in Barmer tehsil, situated at the foot of a hill about 16 miles to the north-west of Barmer and three miles to the north of the railway station of Khadeen. It is now uninhabited but the ruins of five old temples are important from the archaeological point of view.

From an inscription dated S. 1218 (1161 A.D.) it would appear that the original name of the place was Kiratkoop and that a Punwar king owing allegiance to the kings of Gujerat ruled at that time.

Of the five temples, four are dedicated to Siva and one to Vishnu. The biggest temple is that of Someshwar. The roof of its *sabhamandap* has fallen, but the *garbhagriha* is virtually intact. The other four temples are, however, in much worse condition. The walls, friezes and lintels of all the temples have numerous sculptures depicting scenes from Hindu mythology.

The Vaishnava shrine is the oldest. Two of the outside niches, facing the south and west, contain rather curious images of Vishnu; the first shows him seated on a *sinhasan* with ten hands and a nimbus behind his head, while in the second he is riding *Garuda* (eagle) and has three faces, one of which has a tusk and consequently represent *Varaha* (boar). Many images of Siva and Vishnu are scattered all over the temples.

The temples are made of sand-stone, and even in their ruined condition show traces of their former beauty.

The Kiradu temples have yielded four inscriptions. Three of these can be read well enough to follow the meaning but the fourth cannot be deciphered.

The first inscription is dated S. 1209 (1152 A.D.). A rough translation reads as follows:—

"In the kingdom, conquered by Sriman Kumarapala, Alan Deo made a solemn declaration in the temple of Mahadeva, binding the inhabitants of the three towns as well as their descendants not to kill any animal on the 8th, 11th & 14th *Budh* and *Sudh* of every month; and made it incumbent on them not to deviate from this course till the sun and moon continue to illuminate the earth by day and by night, as to save the life of a dumb animal is an unsurpassing virtue. Anyone sinning against it, shall render himself liable to a fine."

The second inscription, dated V.S. 1218 (1161 A.D.), was engraved on a pillar at the entrance of a temple of Sival. The epigraph measures 17"×17" and contains 26 lines. As the middle portion of the stone from the third line to the twentieth has peeled off, some names, etc., are destroyed. The language is Sanskrit and the whole of the inscription except a portion of the last line is in verse. As regards orthography, it is worth noting that, in some places, the consonant following 'r' is doubled, र is used for र and स for स. The importance of the inscription lies in the fact that this is the only record which contains the genealogy of the Paramara branch of Kiradu and the name of the Paramara king Sindhuraj of Marwar, the father of Utpalaraja, the first known Paramara king of Abu. The inscription was transcribed by Shri Puranchand Nahar in his 'Jaina Inscriptions' and a summary published by Dr. Bhandarkar in his 'List of Inscriptions of N. India'.

The purport is as follows:—

In the dynasty of the Paramaras, who sprang from the fire altar of Vashishtha at Abu, there was born a king named Sindhuraja, who ruled over Maru Mandal (Marwar). His son was Usala (Utpala). The name of Utpala's son and grandson have been obliterated by time. Then is mentioned Dharanidhara (Dharanivarsha)², and his son was Devaraja³, who built a temple of Devarajeshvara. Then is

1. This temple was probably built by Sindhuraja, the founder of the Paramara dynasty of Abu, as is evident from the inscription dated 1218 V.S. found at Kiradu.
2. Ep. Ind. Vol. XL, P. 289. When the Solanki (Chaulukya) Mularaja (998-1052 V.S.) attacked him he was obliged to seek the help of the Rashtrakuta Dhavala of Hasti kundi (Hathundi) in Marwar (Ep. Ind. Vol. X, P. 21).
3. He was also named Mahipala. A copper grant of his dated V.S. 1059 (A.D. 1002) has been found.

mentioned Dhandhuka¹ who ruled over Maru Mandala (Marwar) through the favour of Durlabharaja (1066-1078 V. S.) the Chaulukya king. Krishanaraja (II)² was the son of Dhandhuka, and his son was Sochharaja³, whose son Udayaraja, being a feudatory of (Chaulukya) Jayasimha (1093-1137 A.D.), conquered Choda, Gauda, Karanta and Malava. Someshvara (name peeled off here, but appears in line 23), the son of Udayaraja, regained his lost kingdom of Sindhurajapur⁴ through the favour of (Chaulukya) Jayasimha Siddhara (perhaps in 1141 A.D.), became firmly established in 1148 A.D., in the reign of (Chaulukya) Kumarapala, and protected for a long time Kiratakupa (Kiradu) along with Shivakupa. He also exacted 1,700 horses and took two forts, one Tanukotta⁵ and the other of Navasara⁶, from prince Jajjaka on Tuesday, the first day of the bright half of *Ashvin* 1218 V.S. (1161 A.D.) at 4½ hours after sunrise. But on his (Jajjaka's) acknowledging his allegiance to the Chaulukya king (Kumarapala) he (Someshvara) reinstated him in the possession of those places.

The third Kiradu inscription is of the time of Chaulukya Bhimadeva II and his feudatory Chauhana Madan Brahmadeva and is dated V.S. 1235 (1178 A.D.). It was published in the Indian Antiquary, Vol. LXII (p. 42) March, 1933.

This inscription was also found engraved on a temple pillar and was first noticed by Prof. D. R. Bhandarkar. It is summarized in his 'List of Inscriptions of Northern India' (No. 381).

The inscription runs into 17 lines and covers a space of 17½"×9½". The language is Sanskrit. Except three couplets, one in the beginning and two at the end, the whole is in prose. The middle portion from the fifth to the 14th line, as also the 16th line, has peeled off.

The inscription, after paying reverence to Siva in prose and poetry, gives the date as V.S. 1235, *Kartika Sudi 13 Guru* (Thursday

1. He refused allegiance to the Chaulukya Bhimadeva I (1021 to 1063 A.D.) and was driven from Abu, but afterwards Vimala, the new *Dhudapati* of Abu settled the dispute and brought him back from Chitor where he (Dhandhuka) had lived for some time with king Bhoja of Malwa.
2. He was the younger brother of Puranapala (Bhandarkar's List of Inscriptions of Northern India Nos. 135 and 139).
3. He was the founder of the Paramara branch of Kiradu.
4. This might have been founded by Sindhuraja himself or by his descendants after the name of the founder of the Paramara branch of Marwar and Abu.
5. Tansut in the Jaisalmer State.
6. Nausar in the Jodhpur State.

October 26, 1178) when, in the reign of Bhimadeva II (1178-1241 A.D.) his feudatory Shakambari (Chauhana) Maharajaputra Madan Brahmadeva was ruling at Kiratakupa (Kiradu) and Tejapala was carrying on the administration. It says that the latter's (Tejapala's) wife, seeing the old image of the temple broken by the Turushkas (Muslim invaders) installed a new image on the aforesaid date and, making a request to the ruler (Madan Brahmadeva) provided two gifts for the gods.

These inscriptions, particularly the second, are important from an historical point of view, for they affirm that the rulers of Kiradu of the Punwar (Paramara) dynasty paid allegiance to the Rajas of Gujerat. This is clear from the references to Durlabharaja, Sindhuraaja, Jayasimha and Kumarapala, who all at one time or the other occupied the Gujerat throne.

According to local tradition, the Bhatias of Jaisalmer made frequent raids on Kiradu. The incursions of Bhati Deo Raj of Jaisalmer, followed by the ravages of the Muslims, who destroyed the buildings of the town as well as the temples, hastened the downfall of this little kingdom. The memory of this violence is still retained in the saying.

Kiradu Kathan or thano, ek chahre ek utare.—(Kiradu has become the halting-place of armies, one advances and the other retreats).

Mewa Nagar

The old name of this village was Virampur, which is said to have been built in the 12th or 13th century round the temple of Nakoraji, which itself was built in 1076 A.D. according to an inscription. Later, the inhabited site was moved some distance away. After the coming of the Rathors the village was held by their vassals, the Sonagara Rajputs.

Mewa Nagar is built on the slope of a hill called Nagar-ki-Bhadrion and is about six miles from Balotra, with which it is connected by road. It has three Jain temples as well as one dedicated to Vishnu. The oldest and biggest temple is that of Nakora Parasvanath; the other Jain temples are dedicated to Rishabadeva and Santinath, respectively. Structural alterations to the roofs and pillars have been carried out from time to time so that parts of the temples are fairly modern.

There are several inscriptions of historical interest. One, in the temple of Rishabadeva, dated V.S. 1568 (1511 A.D.) refers to the reign of Raula Kushakana and records the erection of the *ranga mandap* of the temple by the Sangha of Virampur on the advice of Pandit Charitrasadhagani, pupil of Bhattarakha Hemi Vimal Suri. A second inscription, dated V.S. 1637 (1580 A.D.) says that Raula Megharaja was reigning at the time. A third dated V.S. 1667 (1510 A.D.) gives the name of the then ruler as Raula Teja.

An inscription of V.S. 1614 (1557 A.D.) in the temple of Santinath tells of the completion of the *nata mandaps* of that temple. At that time, Raula Megharaja was ruling. Another inscription dated V.S. 1681 (1624 A.D.) says that Raula Sri Jagamal was the ruler; it records the erection of a *nirgama chatushkika* together with three windows in the temple of Parasvanath by the Jain community. An earlier inscription dated V.S. 1678 (1621 A.D.) refers both to Jagamal and one Yasodeva Suri.

A fair is held at Mewa Nagar every year in the month of *Pays*.

Pachpadra

Headquarters of the tehsil of the same name, Pachpadra is situated at latitude 25°55' north and longitude 72°15' east about 62 miles from Barmer on a branch line of the railway taking off from Balotra and had a population of 2,318 in 1951. The drinking water problem is acute and supplies have to be obtained by rail almost every summer. Five miles to the west is the well known salt production centre which is described elsewhere in this gazetteer. A separate village has grown up at the works. Very high temperatures, sometimes reaching 122° F. (50°C.) in the shade are not uncommon here and the glare caused by the reflection of the sun from the salt is most uncomfortable.

The place is said to be named after a Jat called Pancha who, in or about the 16th century, founded a small hamlet which was called Panchpadra.

Siwana

Headquarters of the tehsil of the same name, this village is situated in the hills locally called Chappan-ka-Pahar in the south east of the district at latitude 25°38' north and longitude 72°26' east. It is about seven miles from the railway station of Mokalsar on the Smdari-Raniwara section of the Northern Railway.

The town was founded in V.S. 1011 (954 A.D.) by Veer Narayana, son of the Paramar Raja Bhoj and named Kumthana. It was conquered by Allauddin in V.S. 1364 (1308 A.D.) and renamed Siwana by him.

It has been identified by some writers as the Xoana of Ptolemy, "a place in the country of the Bhaolingas between the desert and the Aravallis." The fort, on a hill to the west, is approached by a circuitous ascent of nearly five miles, and has seen much fighting. In the *Tarikh-i-Alai* we are told that in July, 1308 Allauddin set out on his expedition against Siwana, "a fort situated on an eminence, one hundred *parsangs* from Delhi, and surrounded by a forest occupied by wild men who committed highway robberies. Satal Deo, a *gabr* (pagan), sat on the summit of the hill-fort, like the *simurgh* (a fabulous bird) on the Caucasus, and several thousand other *gabs* were also present, like so many mountain vultures. The western forces carried out the assault under the orders of Malik Kamaluddin Garg and some of the garrison, in attempting to escape to the jungles, were pursued and killed." A few days later, Satal Deo was slain and the king returned to Delhi.

The next mention of the place by the Muslim historians is in the *Tarikh-i-Sher Shahi*, where it is related that Rao Maldeo, having been defeated by Sher Shah, "retired to the fort of Siwana on the borders of Gujerat." Lastly, we learn from the *Tabqat-i-Akbari* and the *Akbarnamah* that the place was besieged for a long time (in or about the year 1574) by Shah Kuli Khan, Jalal Khan, Rai Singh of Bikaner and others—all lieutenants of Akbar—who failed to carry the fortress, one of whom (Jalal Khan) being killed, but that eventually Shahbaz Khan was given command and took the fort in a short time.

APPENDIX A

Restoration of Civil and Revenue Jurisdiction of the district of Mallani to the Jodhpur Darbar.

No. 3250 A.G. dated Mount Abu, the 30th June, 1891.

FROM

Colonel G.H. Trevor, A.G.G. in Rajputana.

TO

The Secretary to the Government of India, in the Foreign and Political Department.

As requested in paragraph 9 of Mr. Cunningham's letter No. 2292-I dated the 30th May, 1891, I have the honour to forward for the information of His Excellency the Viceroy and Governor-General in Council copies, with translations, of a *Kharita* from me to the Maharaja of Jodhpur making known the terms on which the Government of India are prepared to restore to his Darbar the civil and revenue jurisdiction of the district of Mallani and of His Highness' reply unreservedly accepting the several conditions laid down.

2. With respect to the date from which the proposed transfer should take place, Resident, Western Rajputana States informs me that the official who has, in consultation with him, been selected by the Darbar for appointment as Superintendent of Mallani is at present on leave and will not return to duty until late next month. Colonel Powlett therefore suggested that the new arrangements be brought into force from the 1st August next. I approve of this proposal and recommend it for the sanction of the Government of India.

Translation of a *kharita* from the A.G.G. to H.H. the Maharaja of Jodhpur dated 8-6-1891.

After compliments in your English letter dated the 5th August, 1890, to the address of Colonel Powlett, Your Highness made a request for the restoration of your control of the district of Mallani. Colonel Powlett

forwarded Your Highness' communication to me and, after taking it into consideration, I submitted it with a report to the Government of India. I have now the pleasure to inform you that His Excellency the Governor-General-in-Council has signified his readiness to restore Mallani to Marwar State on the following terms:—

1. That the civil and revenue jurisdiction of Mallani shall vest in Your Highness' Darbar subject to the proviso that all the chief officials who may be entrusted with the revenue or judicial administration shall hold office only with the consent and approval of the Resident of the Western Rajputana States.
2. That the Resident shall retain in his own hands for some time to come the administration of criminal justice and of the police in Mallani.
3. That to meet current expenditure, the Resident shall retain temporarily receipts from fines and forfeiture, handing over to the Darbar at the close of each year any surplus of the receipts from these sources which may remain unexpended.
4. That the balance at the credit of the Mallani Fund shall be made over to the Darbar.
5. That no tax or cess of any kind shall be levied in Mallani and no addition made to the *faujbal* without the sanction of the A.G.G. Rajputana.
6. That no decision or order passed by competent authority during the time that the district of Mallani has been under British Administration shall be reversed or modified without the consent and approval of the A.G.G. Rajputana.

The above conditions will I trust, be found to harmonize with Your Highness' desire to obtain control of Mallani district and I shall be glad to be informed that they are accepted by Your Highness. On receipt of your reply I will report to the Government of India and arrange for the proposed transfer of the civil and revenue administration of Mallani as set forth above.

Translation of a *kharita* from H.H. of Jodhpur to A.G. Rajputana.

D/- 14-6-1891.

After compliments, I am highly gratified by the receipt of your kind *kharita* of 8-6-91 conveying to me the glad tidings of the gracious assent

of H.E. the Viceroy and Governor-General of your kind recommendations regarding the restoration of Mallani to my Darbar on certain special conditions.

I am heartily thankful to you for your kind offices in securing to this Darbar a boon which had been the highest aim of my ambition.

With great pleasure I accept all the proposed conditions as detailed below:—

1. That the civil and revenue jurisdiction of Mallani shall vest in this Darbar, subject to the proviso that all the chief officials who may be entrusted with revenue or judicial administration shall hold office only with the consent and approval of the Resident, W.R.S.
2. That the Resident shall retain in his own hands for some time to come the administration of criminal justice and of the police in Mallani.
3. That to meet current expenditure the Resident shall retain temporarily the receipts from fines and forfeitures, handing over to the Darbar at the close of each year any surplus of the receipts from these sources which may remain unexpended.
4. That the balance at the credit of the Mallani Fund shall be made over to the Darbar.
5. That no extra tax or cess of any kind shall be levied in Mallani and no addition made to the *faujbal* without the previous sanction of the A.G.G. in Rajputana.
6. That no decision or order passed by competent authority during the time that the district of Mallani has been under British Administration shall be reversed or modified without the consent and approval of the A.G.G. Rajputana.

In conclusion I express my unqualified acceptance of all the foregoing conditions and venture to trust that the kind patronage which you have shown in securing this desired boon to my Darbar will be further and completely extended.

No. 3122-I dated 28-7-1891.

From

Assistant Secretary to the Government of India.

To

The A.G.G. in Rajputana.

I am directed to acknowledge receipt of your letter No. 3250, dated 30-6-1891 reporting the acceptance by the Maharaja of Jodhpur of the terms on which the Government of India are prepared to restore to him the civil and revenue administration of Mallani District.

In reply I am to say that as a provisional measure and, subject to the approval of Her Majesty's Secretary of State for India, the Government of India approve the introduction of the new arrangements as recommended by you with effect from the 1st August, 1891.

APPENDIX B

JODHPORE SALT AGREEMENT

Dated January 18, 1879.

Ratified May 8, 1879.

Article 1

His Highness the Maharaja of Jodhpore agrees to suppress and absolutely prohibit and prevent the manufacture of salt within any part of the Jodhpore State except at salt sources administered by the British Government, or worked under special licences from the British Government:

Provided that nothing in this Article shall be held to prohibit the bonafide manufacture of saltpetre at any work existing within the Jodhpore State, or the opening at any time with the previous knowledge of the Political Agent of such new saltpetre works as the Maharaja of Jodhpore may consider necessary.

Article 2

His Highness the Maharaja undertakes to prevent the importation into, or exportation from, the Jodhpore State, of any salt whatever, other than salt upon which duty has been levied by the British Government.

Article 3

No export or transit duty shall be levied within the Jodhpore State upon salt upon which duty has been levied by the British Government.

Article 4

His Highness the Maharaja agrees to lease to the British Government from a date to be fixed by that Government, the right of manufacturing and selling salt at the salt sources or DARIBAS here below named :—

Pachbadra

Phalodi

Didwana

The Luni Tract.

Provided that if the British Government shall at any time cease to carry on, or permit the manufacture of salt at any or all of the said salt

sources, they shall equitably compensate all proprietors of private works therein situated and all manufactures therein employed for any losses they may in consequence sustain:

Provided also that the Maharaja of Jodhpore shall only be held to transfer to the British Government such rights, property and authority over any works or pits at present existing at any of the said sources as are now actually vested in himself.

Article 5

His Highness the Maharaja will, in consultation with the Political Agent, cause each of the four salt sources aforesaid to be demarcated by a line enclosing the whole tract occupied, and shall extend the provisions of Articles 3, 5, 6, and 16 of the Sambhur Lake Treaty of 1870 to the tracts so enclosed, so far as they may be applicable. The British Government agrees to the extension of Articles 10, 14 and 15 of the said Treaty to the said tract.

Article 6

The British Government agree to pay annually, in half-yearly instalments, to His Highness the Maharaja for the lease of the four salt sources named in Article 4 (including compensation to all holders of *dharmade* and similar charitable and religious allotments) the following sums in British Indian currency:—

	Rs.
For Didwana	2,00,000
Pachbadra	1,70,000
Phalodi	4,500
Luni Tract	1,500
	3,76,000
And for losses sustained by the suppression of Khari works in khalsa land ..	15,800
TOTAL ..	3,91,800

Article 7

The losses likely to be incurred by jagirdars and others entitled to share in the rents and revenues of the salt works that will be suppressed under this Agreement having been considered by the British Government and the Maharaja, the British Government further agree to pay annually,

and His Highness the Maharaja undertakes to distribute the indemnities settled, aggregating Rs. 19,595-5-3.

Article 8

The losses of Kharols and others connected with the manufacture of salt within the Jodhpore State having been considered in concert by the British Government and the Maharaja of Jodhpore, the British Government hereby agree to pay to His Highness the Maharaja the sum of rupees three lakhs by way of compensation to the said persons, and His Highness the Maharaja undertakes to distribute the said sum of rupees three lakhs among the said persons.

Article 9

If any stocks of salt be found to exist within the Jodhpur State at the time when this Agreement comes into force or when a duty shall be first imposed by the British Government at the aforesaid works on their produce, the Maharaja of Jodhpore will, if so required by the British Government, take possession of such stocks and will give the owners thereof the option either of transferring the salt to the British Government at such equitable valuation as he may fix in concurrence with the Political Agent, or of paying the said Agent such duty not exceeding two rupees eight annas per maund on such salt as the Governor General-in-Council may fix. In the event of the owners as aforesaid accepting the latter alternative they shall be allowed to retain the salt on which the said duty may have been paid, but not otherwise.

Article 10

In consideration of the loyal and effective observance by His Highness the Maharaja of Jodhpur of the stipulations in this Agreement regarding the suppression of minor salt works, the indemnities payable to proprietors, the exemptions from transit duty of salt covered by British passes and the prevention of export of other salt, the British Government agree to pay to His Highness the Maharaja of Jodhpore the following sums annually:—

	Rs.
On account of transit and export duties on salt	25,000
For preventive establishment	50,000
For miscellaneous revenue and incidental emoluments	50,000
TOTAL ..	1,25,000

APPENDIX C

Receipts for 1960-61.

(Rupees)

S. No.	Major Heads	1960-61	Remarks
1.	Union Excise Duties	192.81	1309.70
		1116.89	
2.	Land Revenue	911367.46	
3.	State Excise Duties	474139.38	
4.	Stamps	158217.60	
5.	Forest	..	
6.	Registration	16609.12	
7.	Taxes on Vehicles	115875.18	
8.	Sales Tax	532192.51	
9.	Other Taxes and Duties	140899.53	
10.	Interest	48847.53	
11.	Administration of Justice	11976.44	
12.	Jails and convict settlements	149.89	
13.	Police	28402.00	
14.	Education	22261.86	
15.	Medical	240.00	
16.	Public Health	14334.36	
17.	Agriculture	6046.16	
18.	Veterinary	228892.49	
19.	Co-operation	7.24	
20.	Industries and Supplies	16918.99	
21.	Miscellaneous Departments	35282.38	
22.	Civil Works	11976.60	
23.	Receipts in Aid of Superannuation	1149.16	
24.	Stationery and Printing	2995.62	
25.	Miscellaneous	45549.05	
26.	Extraordinary Receipts	136.17	
27.	Loans and Advances by State Government	301641.55	
	TOTAL ..	3127417.96	

APPENDIX D

Expenditure for 1960-61.

(Rupees)

S. No.	Major Head	1960-61
1.	Land Revenue	384482.43
2.	State Excise Duties	..
3.	Stamps	3254.72
4.	Forest	375.00
5.	Registration	350.97
6.	Charges on account of Motor Vehicles	4790.86
7.	Sales Tax	73579.71
8.	Other taxes and duties	
9.	Interest on works for which capital accounts are kept	..
10.	Other Revenue expenditure financed from ordinary Revenue	..
11.	Interest on debt and other obligations	75220.33
12.	Appropriation for Reduction and Avoidance of Debt	..
13.	General Administration	418142.22
14.	Administration of Justice	125528.18
15.	Jails	40957.73
16.	Police	2526890.20
17.	Scientific Departments	1831.00

(Rupees)

S. No.	Major Head	1960-61
18.	Education	969311.27
19.	Medical	77912.23
20.	Public Health	370175.62
21.	Agriculture	48752.94
22.	Animal Husbandry	92005.78
23.	Co-operation	120038.60
24.	Industries and Supplies	41159.61
25.	Miscellaneous Departments	120720.82
26.	Civil works	141989.66
27.	Capital outlay or Civil Works financed from Revenue	..
28.	Other Revenue expenditure connected with Multipurpose River schemes	..
29.	Famine	67809.03
30.	Privy purses and allowances of Indian Rulers	..
31.	Superannuation allowances and pensions	7127.17
32.	Miscellaneous	262691.78
33.	Community Development projects, National Extension Service and Local Development Works	1070041.08
34.	Payments of compensations to Land holders etc. on the abolition of Zamindari system	567636.64
35.	Capital outlay on schemes of Government	..
TOTAL ..		7612775.58

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126	1	the	then
28	24	konwn	known
26	under Private Schools (Table)	..	Balotra, Barmer, Barmer, and Jasol are in receipt of State assis- tance
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PLATES



An architectural specimen of 12th century at Kiradu Temples

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Head of a female figure

12th century A.D.

Found at Kiradu (Marwar)

Head of a female

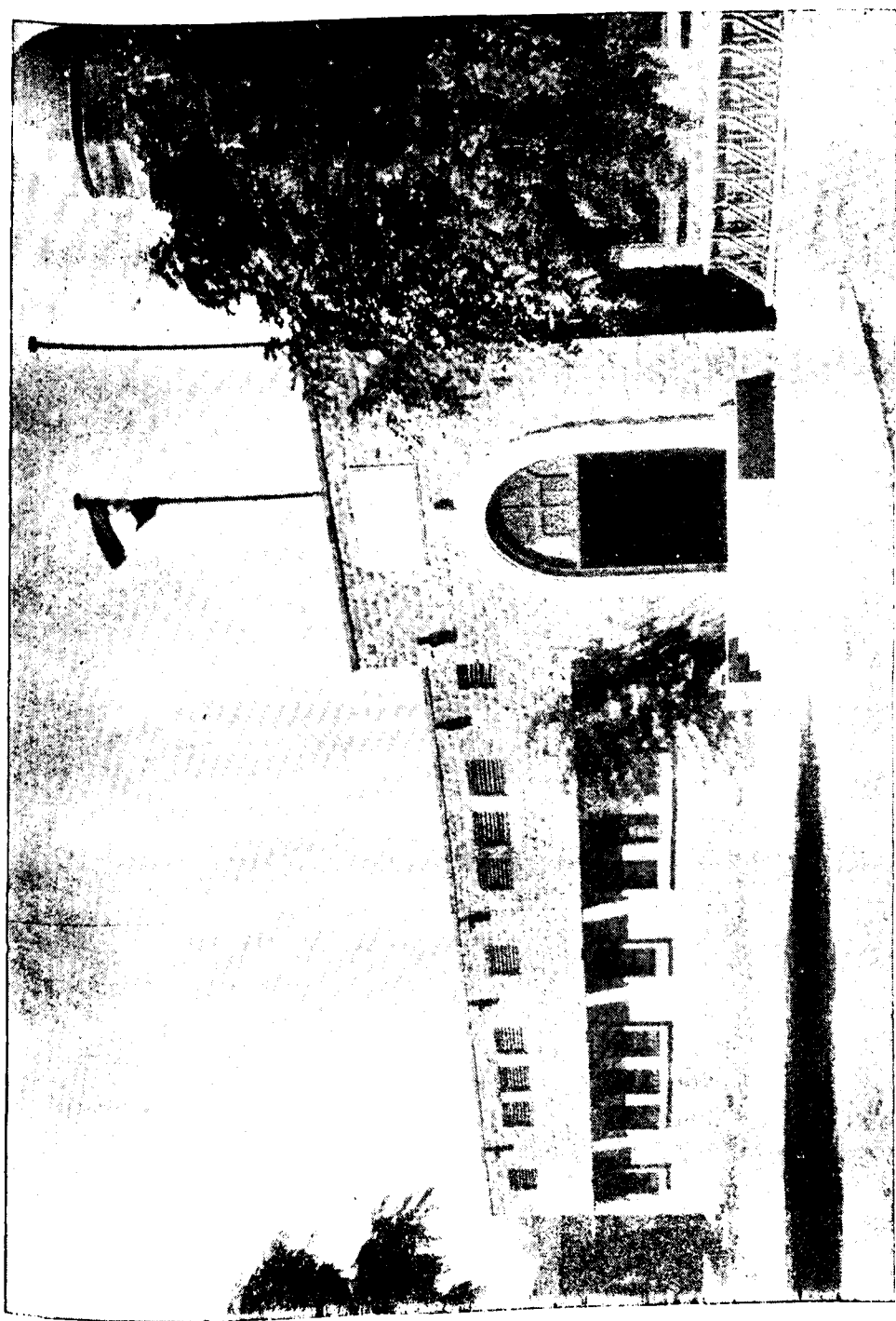
12th century

Found at Kiradu

Another architecture of the region



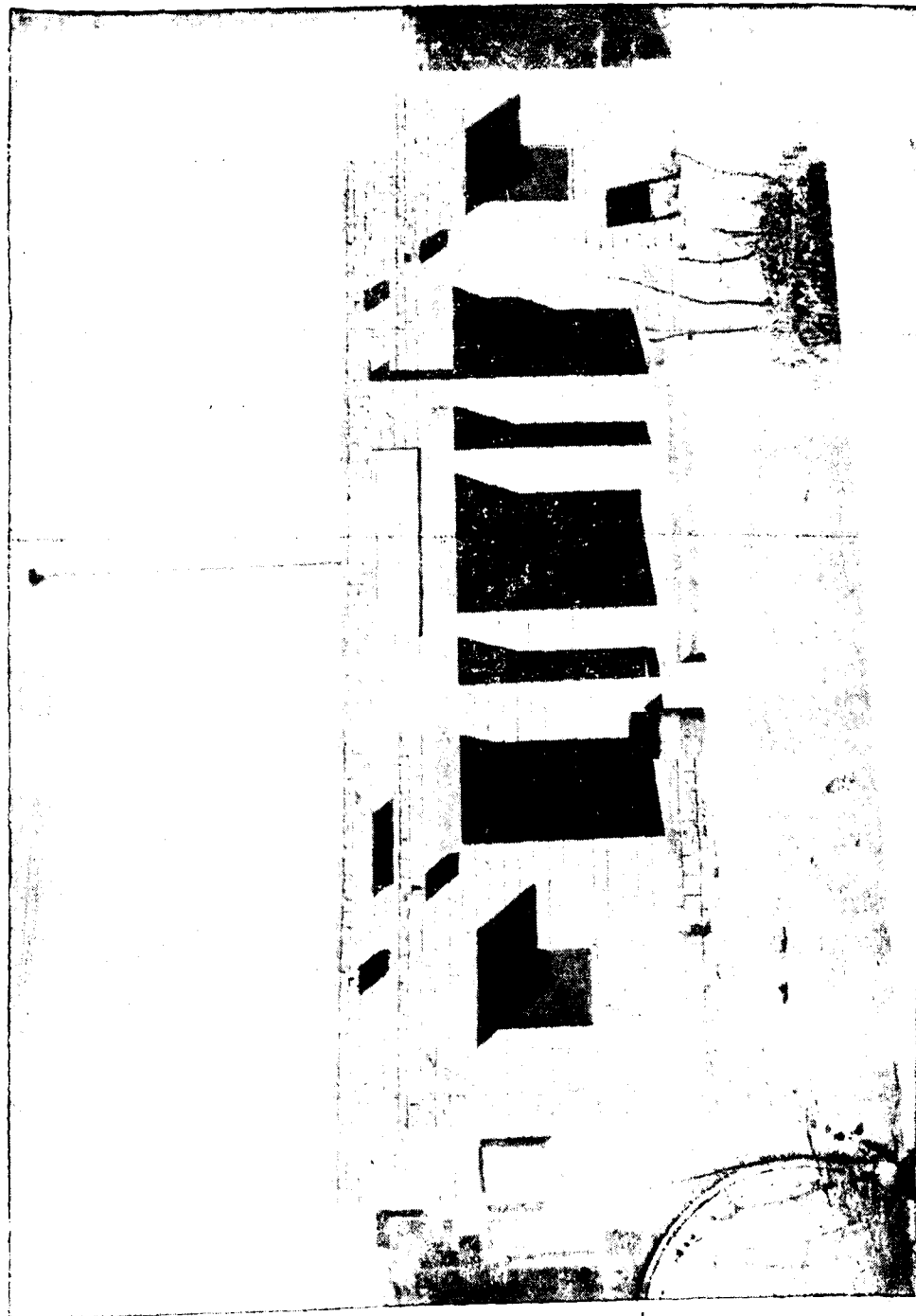
A view of Banner town.



Collectorate, Bernier.



A view of the Tilwara Cattle Fair.



F W D building

25149

தமிழ்நாடு ஆவணக்காப்பக நூலகம்,
எழும்பூர், சென்னை-600 008.

தவணைத்தாள்.

சே. எண் :

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